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A PRIMER ON HOSPITAL AND PHYSICIAN RATE SETTING SYSTEMS

Final Report

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1.0 INTRODUCTION

1.1 PURPOSE OF PRIMER

The goals of the most recent Federal proposals to reform the U.S. health care sector have been to enhance cost containment efforts by providers and insurers and to extend health insurance coverage to more people. Many of these reforms propose managed competition as a way to achieve cost containment, but policymakers in some states may prefer a more direct approach to controlling spiraling health spending. In an all-payer or multi-payer rate setting system, a central public authority (such as, a state rate setting agency) establishes mandatory payment rates and a common set of rules for all or nearly all purchasers of health care. The public authority controls prices paid to providers by private insurers, such as Blue Cross/Blue Shield, as well as public insurers, such as, Medicaid. In fact, some states have had hospital rate setting systems in place for a number of years while others are modifying Medicare payment methods--diagnosis related groups (DRGs) and the Medicare fee schedule--for their own use.

This primer is a guide for state health department, Medicaid, and other health care staff who are responsible, or may become responsible, for developing and administering a rate setting system for their state's hospital and/or physician sectors. It provides information required to:

- Choose among alternative rate setting approaches.
- Design the system.
- Implement the system.

The guide is not intended as a detailed description of all possible rate setting systems, nor is it intended to describe a rate setting system for *all* health services. Rather, the primer focuses on rate setting systems only for hospitals and physicians. It builds on best practices and the general experiences of four states that established rate setting systems during the past two decades or that are now implementing rate setting in the 1990s. Learning more about the overall structures and policy decisions required to implement these four state systems should help administrators in other states to focus their inquiries about the details of implementation and direct their state efforts more effectively.

1.2 ADVANTAGES OF A MULTI-PAYER SYSTEM

Ideally, a state rate setting system should include all, or most, payers, although this primer can still inform individual payers as well. There are many reasons for including many or all payers.

- **Control Costs.** A primary motivation behind a multi-payer rate setting system is to contain growing expenditures for hospital and physician services. Limiting prices may be especially important if little competition exists among providers to hold prices down. Furthermore, by including several payers in one rate setting system, a state can consolidate its efforts at controlling costs using just a few policy levers. For example, updating rates from one period to the next by one set of rules, publicly arrived at, focuses cost control on the amount by which the rates are increased and applies to all included payers and providers.

- **Limit Cost Shifting.** When all payers are included under a unified set of reimbursement rules, health care providers are prevented from shifting costs of care from one payer group to another (by raising charges to one insurer when another constrains its payments). Shifting costs through higher charges has been one method that providers have used to avoid cost containment incentives implicit in many partial rate setting systems, such as Medicare's Prospective Payment System (PPS). By making it more difficult to shift costs to other public or private payers, a multi-payer system should induce physicians and hospitals to increase their efforts to manage patients more efficiently. Multi-payer systems do not require the *same* payment rates for all payers. Because of the different populations covered by insurers, and historical circumstance, identical rates could lead to large redistributions among payers. Thus, most multi-payer systems maintain some differentials among payers (usually higher rates for the privately insured), but *limit* the rate differences as compared to an unregulated market. Even these differences could be phased out over time.

- **Avoid Selection Bias.** Properly designed, multi-payer systems can eliminate incentives for providers to select patients with broader insurance coverage over others such as Medicaid patients, or to treat them differently because of the source of payment.

- **Simplify Payment Methods.** Uniform payment rules have the added advantage of aligning provider incentives across payers. Unlike the current fragmented system, a multi-payer system would not confront providers with an inconsistent and confusing array of payment methods that sometimes reward and sometimes penalize efficient patient management.

- **Finance Social Objectives Such as Improving Access to Care.** Multi-payer rate setting provides a means of financing and distributing health care revenues to support activities deemed to be socially worthwhile in ways that might not be supported in a private market (Thorpe, 1987). For example, rate setting can provide a convenient and equitable means to subsidize care for the uninsured and underinsured. Payment rates or special financing mechanisms can be established to reimburse hospitals for uncompensated care or to direct more resources to fiscally distressed hospitals serving disproportionate numbers of the poor. Similarly, costs of medical education and research incurred by teaching hospitals can be spread across a broader base through rate setting, and the essential access provided by isolated rural hospitals can be subsidized.

- **Maximize Small Group Purchasing Power.** Multi-payer rate setting systems, by making rates more equitable between large and small payer groups, could enable individuals or small businesses to enjoy the lower rates offered large payer groups.

- **Save on Administrative Costs.** Rate setting may save administrative costs through a single pricing entity. Duplication of databases and negotiations across payers can be avoided where all data and decision making flow through a single, coordinated, rate setting entity.

- **Fill Gaps in Managed Care.** Finally, managed care may not be feasible in some areas because of either lack of market competition or inability of persons to afford health insurance. Under managed competition, rural and inner city areas are not as attractive to insurers as suburban populations. Multi-payer systems can fill these geographic gaps, either permanently or as transitional systems until managed competition can be established. Similarly, some entire states--especially rural and less populated ones--may be temporarily or permanently more suited for rate regulation than managed competition, either as a short-run transition, or in the long run.

1.3 CHALLENGES OF MULTI-PAYER RATE SETTING

Along with its strengths, multi-payer rate setting has potential drawbacks. A primary danger is that payment rates might not be set at an appropriate level (Anderson, 1991). On the one hand, the public rate setting authority might overemphasize cost containment in response to budgetary pressures and set rates too low. This could lead to reduced access to medical care and a deterioration in the quality of care, as well as the enmity of medical care providers. On the other hand, if the rate setting process is "captured" (i.e., unduly influenced) by provider interests, rates might be set too high, resulting in excessively high insurance premiums and provider profits. Careful design of multi-payer systems could avoid, or at least mitigate, these potential outcomes. For example, having annual rate updates determined by an independent commission or council, insulated from the political process, can help to guard against inadequate or excessive rate changes.

A second problem with multi-payer rate setting systems is that they may tend to stifle innovative competitive systems such as health maintenance organizations (HMOs) and preferred provider organizations (PPOs). If discounts from the regulated prices are not allowed, HMOs and PPOs cannot establish price competition among medical providers and spur them to improve efficiency. Rate setting authorities may tend to protect existing providers, making it difficult, for example, to close down excess hospital capacity. However, multi-payer rate setting and competitive managed care are not necessarily incompatible (Ginsburg and Thorpe, 1992; Anderson, 1991). Managed care contains costs by controlling volume, while rate setting contains costs by controlling price. Or managed care organizations could be exempted from rate setting altogether. The role of managed care is discussed further in Section 2.8. Throughout this primer, design choices are highlighted which can help states to improve the effectiveness of multi-payer rate setting in achieving the state's goals.

1.4 CHARACTERISTICS OF EXISTING RATE SETTING SYSTEMS

It is fortunate that many states and private payers already have adopted various forms of hospital or physician rate setting. According to a recent survey by the RAND Corporation (Carter *et al.*, 1994), 21 states now are using Diagnosis-Related Groups (DRGs) for Medicaid payment and two-thirds of Blue Cross plans use DRGs for at least one of their insurance products. A few other states have implemented other systems with different

payment units and provider-specific payments. State systems vary along a number of dimensions. Among the most important of these are:

- **Types of payers covered.** All payers, some payers, or only one major payer for health care services, e.g., Medicaid.
- **Types of providers covered.** Hospitals, physicians, other providers.
- **Types of services covered.** Acute inpatient care, physician care, chronic care.
- **Regulatory goals.** Cost containment, increased access, increased quality of care, regionalization of services.
- **Cost containment strategy.** Rate setting alone, managed competition, or a blending of the two approaches.

Rate setting systems apply the same reimbursement rules and procedures to each participating payer. Payment rates are not necessarily the same for every payer, but the regulations must make explicit any differences in payment rates across payers or providers. This means that variations in rates are explicit among payers and are publicly set by the regulatory body.

Regulating all or most payers and providers requires an extensive administrative structure with comprehensive data collection and analysis. States have created rate setting entities as sections of existing state health departments or established them as separate commissions or other joint payer-provider decision-making bodies. They are often funded through add-ons to insurer rates, thereby sharing administrative overhead costs with providers.

Rate setting may or may not apply to all hospital or physician providers in a state, although excluded providers generally comprise only a small part of a state's health care spending. Providers may be exempted because the type of care they offer requires different reimbursement methods from those of most providers (e.g., psychiatric facilities), or, if they are essential for access, and uniform rates could put them at unacceptable financial risk (e.g., small rural hospitals). Exempted groups are often reimbursed retrospectively according to their own charges or costs with some rate-of-increase limits.

In the past, some states allowed providers to choose to be included in rate regulatory systems, but this voluntary approach is no longer considered an alternative. Rate setting systems require a degree of coercion to be effective because they limit rates and specify payment methods in ways different from what would be allowed in an unfettered market.

1.5 ORGANIZATION OF THE PRIMER

In the chapters that follow, this primer on designing and implementing a multi-payer state rate setting system describes a number of choices and decisions that state policymakers must make. Its scope is limited to hospitals and physicians, who make up the majority of health care spending. A first section comprising Chapters 2, 3, and 4 lays out the choices and decisions for policymakers. A following case study section, made up of Chapters 5-8, provides detailed descriptions of four state systems. Readers interested in only hospital or physician rate setting can focus on either Chapter 2 or Chapter 3, supplemented by the organizational material in Chapter 4.

Chapter 2, **Hospital Rate Setting**, provides a general discussion of policy and technical issues related specifically to hospital reimbursement systems. After reviewing the generic types of systems, it defines the elements that are needed in any reimbursement system and describes the decisions that are required to establish units of payment, base rates, and update factors. It also details the treatment of special costs in the hospital sector: direct and indirect medical education costs, capital reimbursement, and the costs of bad debt and charity care.

Chapter 3, **Physician Rate Setting**, begins with an overview of alternative reimbursement systems for physicians before focusing on a physician fee schedule approach based on resource-based relative values modeled on the Medicare system. This chapter describes the methodology and discusses the major policy decisions that states must make in implementing a resource-based fee schedule. It then lays out the steps required to implement the system. While many states are now designing such a system, states have little practical experience with such a complicated fee schedule. The State of Washington (see Chapter 7), with 18 months experience, is used as one example of the practical decisions that have to be made and the problems that other states will have to resolve.

Chapter 4, **Organizational Structure and Administration of Rate Setting Systems**, delineates what states must consider in enacting, implementing, and administering these systems. It specifically describes the characteristics and authorities of the rate setting bureau or commission.

Chapters 5-8 are detailed descriptions of rate setting in four states: **Maryland, New York, Washington, and Minnesota**. These states were chosen because their health care sectors vary significantly and therefore illustrate a range of payment designs and agency organizations. They also exemplify different approaches to integrating rate setting and managed care.

SECTION I

METHODS AND ADMINISTRATION

2.0 HOSPITAL RATE SETTING

2.1 INTRODUCTION

Hospital costs are the single largest component of the nation's health care expenditures: $289 billion or 38 percent in 1991 (Letsch *et al.*, 1992). This amount is more than twice as much as the $142 billion spent on physician services, the next largest spending category. In addition, the major surgeries and other medical procedures performed in hospitals are linked to a significant portion of the country's bills for physician services, nursing homes, home health care, pharmaceuticals, and medical equipment. Because of the key role of hospital care, the size of the industry, and continually rising costs, individual states and the Federal Government have implemented a variety of hospital rate setting systems during the last two decades in an effort to control hospital spending. More recently, managed competition has been embraced by the public and private sectors alike; yet, some states may wish to rely on more direct methods of cost containment, including setting prices for inpatient services.

In establishing equitable and economically efficient payment rates for the hospital sector, policymakers face a number of challenges. First, viable hospital rate setting systems adjust payments for differences across hospitals in case mix, input prices, and other costs such as those associated with teaching medical residents or with serving different patient populations. Second, rates must be adjusted over time to allow for changes in technology that affect diagnosis and treatment modalities and costs. Finally, the rate setting system should give hospital administrators and physicians incentives to constrain health care costs through more efficient delivery of necessary medical services.

This chapter describes the issues and choices that states face in meeting these challenges. These include both policy decisions about the general type of system to implement and technical decisions about the data bases and methods required to calculate rates. Section 2.2 presents an overview of three generic hospital rate setting systems and several hybrids that states have implemented over the last 20 years. Section 2.3 outlines eight broad policy decisions that policymakers in any state must make before enacting a hospital rate setting system. Sections 2.4 and 2.5 describe the two most common types of state rate setting systems for hospitals: (1) payment per case and (2) regulated charges per service. Sections 2.6 through 2.9 deal with issues that must be addressed in any type of rate setting system; namely, annual updates in rates (Section 2.6), hospital capital payments (Section 2.7), bad debt and charity care (2.8), and the direct and indirect costs of graduate medical education (2.9). Section 2.10 reviews reasons for excluding facilities from the rate setting system used for acute care hospitals, and the final section (2.11) discusses the effects of managed care. The necessary enabling legislation and resources for implementation and administration of hospital rate setting are discussed in Chapter 4.

2.2 THREE GENERIC APPROACHES TO HOSPITAL RATE SETTING

There are three basic approaches to hospital rate setting:

- **Global budgets** that cap total revenues for the facility.
- **Bundled payments per diem or per discharge**, based on either hospital-specific rates or statewide average rates, possibly within peer groups.
- **Regulated charges per service**, such as an X-ray, a blood test, or minutes in the operating room.

Global budgets are common in other countries, but in the United States they are used primarily for hospitals run by the military or the Department of Veterans Affairs. It is possible to set a global cap on hospitals, using either bundled payments or regulated charges (as discussed below). Global budgets are distinct, however, when they are used to set total financial requirements at the beginning of the rate period for the facility as a whole, regardless of volume. Because of their limited role in the United States, they are not discussed in detail in this primer. These systems are the topic of a report by Bishop *et al.*(1994) which presents an overview and case studies of both domestic and foreign global budget systems.

Bundled payments per discharge (or per day) are used in many state Medicaid and other public and private programs today (Carter *et al.*, 1994). Per-discharge payment, using Diagnosis-Related Groups (DRGs), is also used by Medicare to reimburse hospitals for approximately 10 million admissions annually. Medicare's new resource-based physician fee schedule is one example of regulated charges, discussed in Chapter 3. An example of a hospital system based on regulated charges is the Maryland rate setting system, described in Chapter 5.

Practically all operational systems are really a hybrid of these three approaches. Often, states pay general acute care facilities under one type of system and other facilities (particularly psychiatric, children's, and rehabilitation hospitals) under another (see Figure 2-1). Similarly, a state rate setting system might pay for most patients treated in an acute care facility under one type of system but cover the costs of some patients (e.g., psychiatric, AIDS, neonates, or transplant cases) with a different method, as described below in this chapter.

2.3 BROAD POLICY DECISIONS

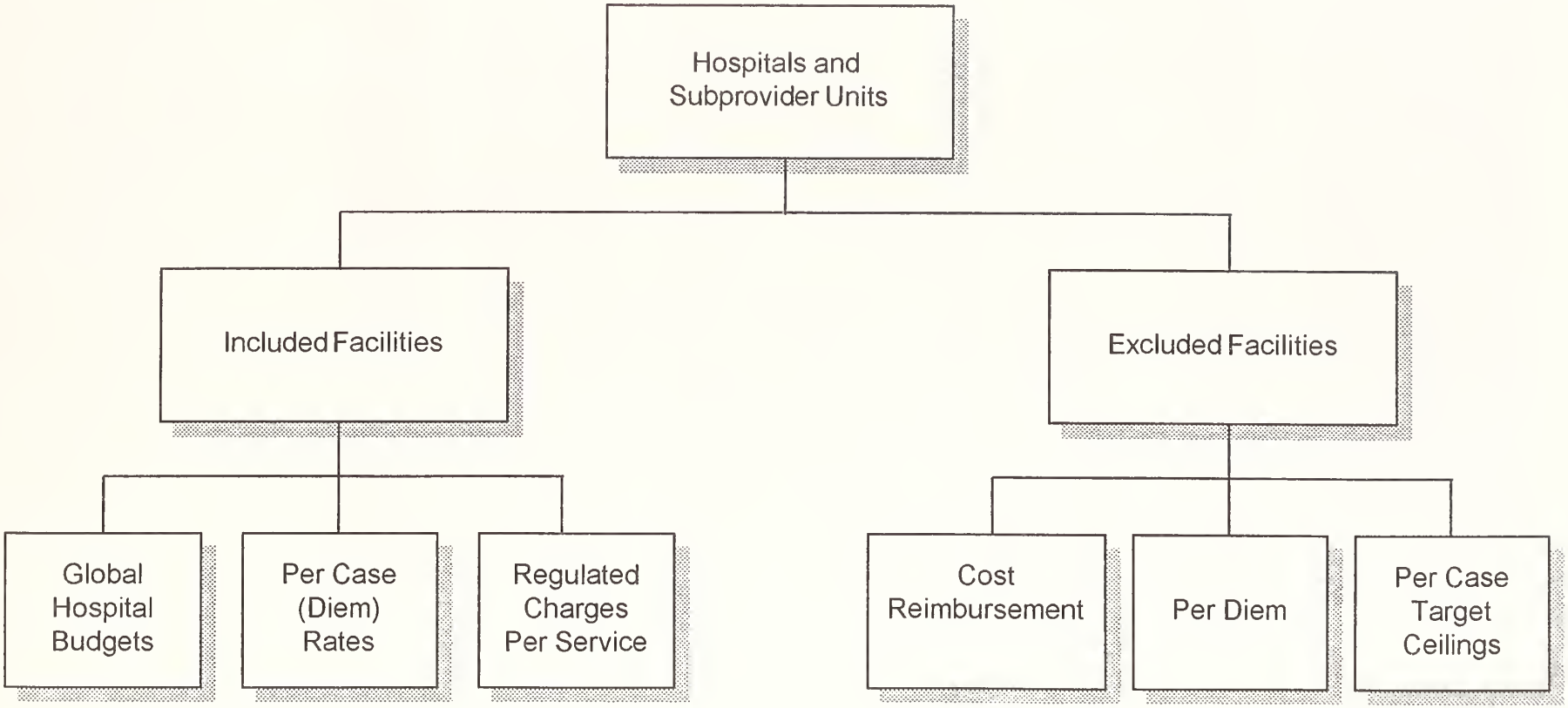
In developing a rate setting system, a state must make certain broad policy decisions. These decisions determine which payment elements a state will use.

- **Locus of Utilization Control.** Rate setting systems can set rates in such a way that the financial incentives to control utilization of health care services fall on either the provider or the payer. Policymakers must decide whether to make hospitals or insurers (or possibly

FIGURE 2-1

THREE GENERIC RATE SETTING SYSTEMS

FOR HOSPITALS



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both) responsible for efficiently managing patients. Bundled payment units (e.g., payments per discharge) give providers a strong incentive to reduce lengths of stay and inappropriate services because the provider can keep any cost savings. Payments per service (e.g., per X-ray or per minute in the operating room), by contrast, encourage insurers to administer utilization controls because the reductions translate directly into lower outlays. Neither system encourages providers to monitor admission rates, leaving that responsibility to payers. Global budgets with limited volume adjustments, on the other hand, encourage providers to screen admissions for necessity because total revenues are largely fixed.

- **Locus of Financial Risk Bearing.** Policymakers must also decide whether providers or payers will bear greater risk for rare but exceptionally costly cases. Payments per admission, with limited exceptions for cases that are outliers in terms of costs or lengths of stay, place most of the risk on the hospitals to manage the case costs. Payments per service place the risk for exceptionally costly cases on the payers.

- **Case-mix Adjustment.** Because hospitals vary in the services they offer, they tend to admit different kinds of patients. Some hospitals do not have obstetrics wards, for example, and consequently handle very few births. Case-mix differences naturally lead to differences in costs. Hospitals treating more technologically complex cases will tend to have higher average costs per case than other hospitals, both overall and in some classes of cases. Rate setting systems adjust for cost differences due to case-mix differences in one of three ways. One approach sets different rates for different diagnoses, different levels of severity, etc., with payments varying by case. A second approach adjusts for differences in case mix by setting different average rates for different hospital peer groups. For example, tertiary hospitals that treat more severe cases might receive a higher rate per discharge than community hospitals. Yet a third approach is to pay for individual services. In this case, no explicit case-mix adjustment is required because patients' bills reflect the care they received.

- **Scope of the Prospective System.** Most prospective hospital payment systems exclude a subset of specialized facilities and/or unusually costly types of cases. Restricting the scope of the prospective rate setting system makes payers bear more of the risk for exempted, often high-cost, care, usually by passing through more of the institutional costs.

- **Reimbursement of Extraordinary Teaching and Low-Income Patient Costs.** Hospital rate setting systems usually provide separate allowances for facilities that train interns and residents. Many systems also pay more for cases treated in hospitals that admit large numbers of low-income patients to cover the added costs of patients who require longer lengths of stay because they lack the social support needed for care at home.

- **Reimbursement of Fixed Costs.** Many hospital costs are fixed and cannot be changed quickly to accommodate rapid volume fluctuations. Cost inflexibility can lead to financial losses when volumes decline and windfall gains when volumes exceed expectations. Policymakers must decide how their system will adjust rates to avoid overpaying or underpaying fixed costs.

- **Updating and Rebasing Payment Rates.** Rate setters must decide whether and how often to update the rates, and how to include the cost effects of new technologies and productivity gains. Because base rates eventually become outmoded with changing market and patient care modalities, policy makers will also have to rebase rates periodically to ensure equity and efficiency.

- **Allowable Payer Rate Differentials.** Many state rate setting systems approve different rates for different payers, even for the same medical condition. For example, rates for Medicaid are often set lower than those for commercial insurers, for reasons discussed below. Policymakers must develop a set of criteria upon which to base payer discounts that recognize case mix, cash flow, or other considerations.

- **Integration With Managed Care.** Managed care exists in various forms in practically every state. In general, rate setting is considered an alternative way of controlling health care outlays, but it is possible to integrate it with managed care. Policymakers will have to decide what role, if any, managed care will play either within a rate setting system or as a stand-alone alternative for some patients.

With these broad policy concerns in mind, let us next consider per-case and per-service rate setting methods in some detail.

2.4 PER-CASE PAYMENT: AN EXAMPLE USING DRGS

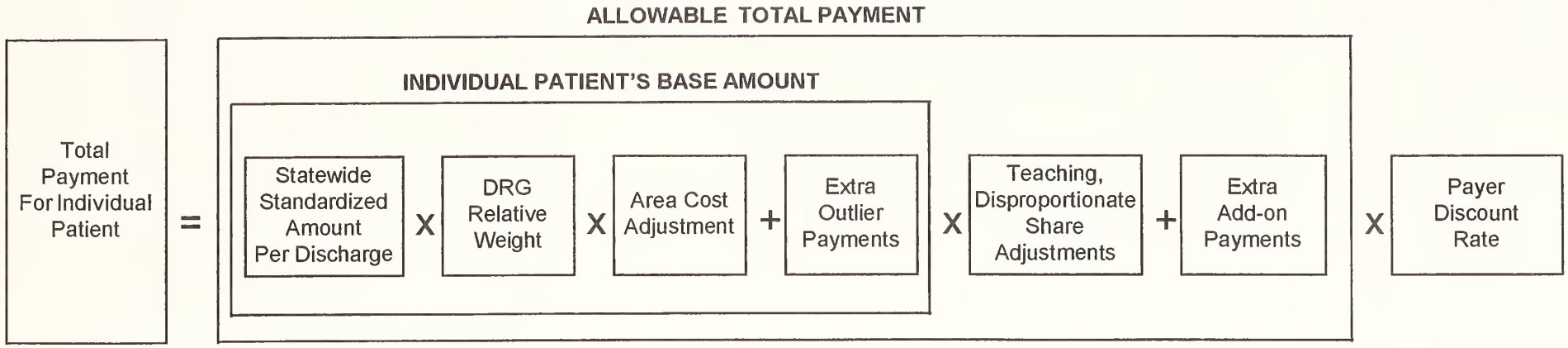
In a per-case (or per-discharge) rate setting system, hospitals are paid an amount for a given diagnosis, which covers all services provided to the patient during the hospitalization. Services are "bundled" instead of being paid for individually. The most common example of a bundled per-discharge rate setting system is the one based on Diagnosis Related Groups (DRGs) used by the Federal Medicare program and many state Medicaid programs. There are many different DRG payment systems, but all of the versions reimburse on a per-case basis according to a formula summarized in stylized generic form in Figure 2-2.

Under a DRG system, the calculation of a specific payer's reimbursement to a particular hospital for a specific DRG begins with determining a standardized amount (see Section 2.4.2) applicable either statewide or to all hospitals in a given peer group. The standardized amount is then multiplied by the DRG relative weight for that diagnostic group. Any needed geographic adjustment is made next. Then any additional outlier amounts for exceptionally costly cases are added. The result is the hospital's base payment amount. This amount, in turn, is multiplied by percentage adjustments for indirect medical education (IME) costs due to teaching residents and disproportionate share (DSH) costs incurred in serving the poor. Next, extra costs are added on for direct medical education salaries (DME), capital, uncompensated care, and any other special costs. Finally, payer-specific discount rates are applied to the allowable total payment.

The following subsections, 2.4.1-2.4.6, discuss the technical decisions related to several of these components of DRG-based payments. Reimbursing for the costs associated with medical education,

FIGURE 2-2

ELEMENTS OF DRG PAYMENT



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disproportionate share patients, capital and other fixed inputs, uncompensated care, and managed care are taken up later in the chapter as they apply to a regulated charge system as well.

2.4.1 The Unit of Payment and the Locus of Utilization Control and Financial Risk

A DRG system uses the discharge as the basic unit of payment. Bundled DRG rates for individual admissions place the locus of utilization management and much of the risk for controlling the intensity of service delivery and lengths of stay directly on the provider. This is because providers generally are not paid more for more difficult cases *within* a DRG category unless the cases are considered outliers. To break even, on average, the hospital must control costs per case. Limiting the number of admissions tends to reduce a provider's total revenue, and vice versa. Consequently, payers are at risk for controlling the number and appropriateness of admissions.

Payers usually share the risk for the costs of outliers--exceptionally costly or lengthy cases within each DRG (discussed further in Section 2.4.6). DRG systems generally pay for the costs of these outlier cases above some threshold on the basis of an average day of care. This per-diem approach is flexible so that the payer reimburses more for costlier or longer-stay outlier cases. The hospital shares the risk for the costs of outlier cases because (1) it bears the costs of the case up to the outlier threshold (either a cost or length-of-stay figure) and (2) the outlier payments are usually based on *estimates* of the additional, or marginal, costs of the cases rather than actual incurred costs or charges. Six states also share the risk in the opposite direction for exceptionally low-cost or short cases. These states reimburse less for cases with lengths of stay below some threshold in order to avoid inappropriate admissions. See Section 2.4.6.

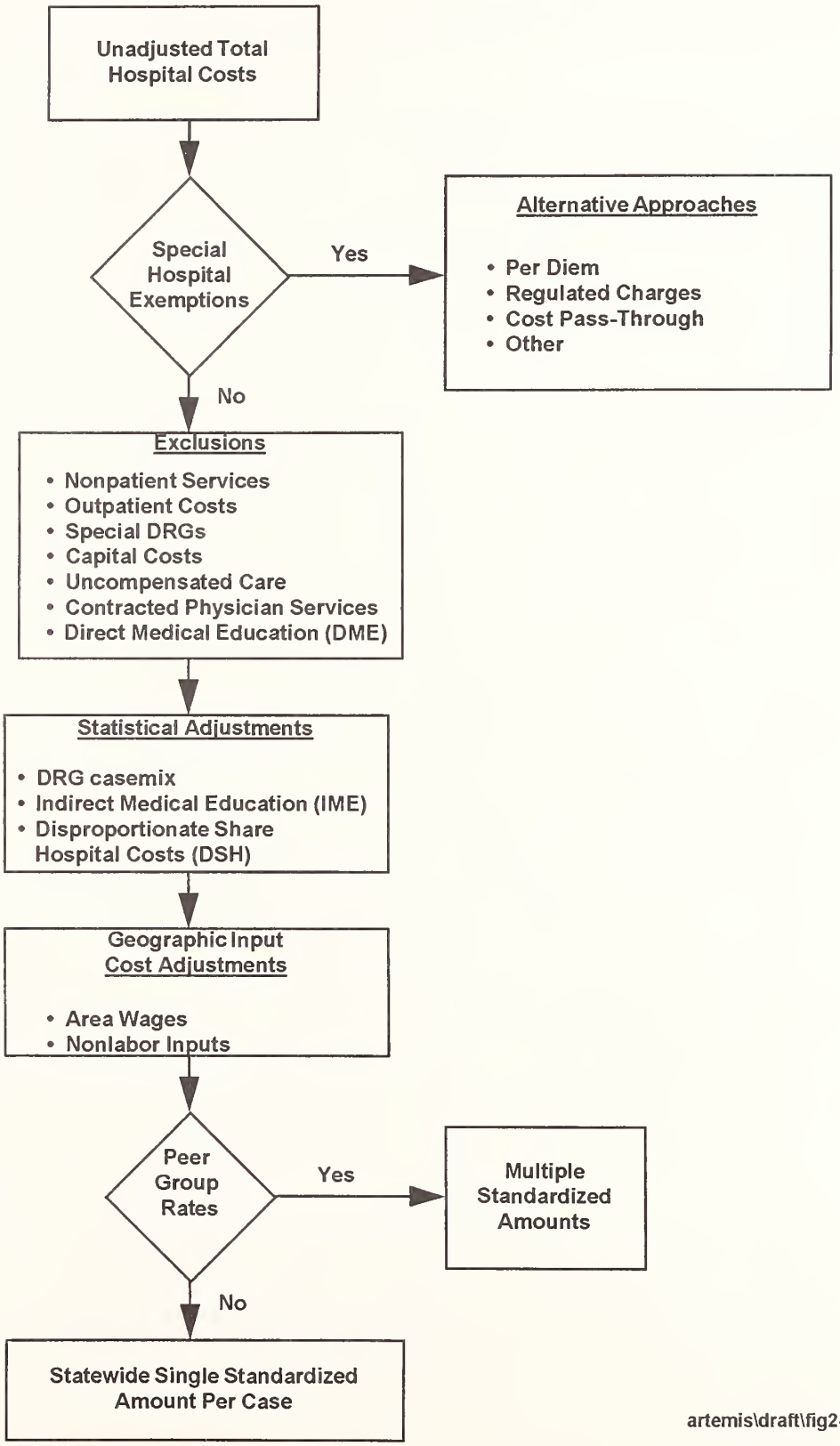
2.4.2 The Standardized Amount

The several steps in calculating the standardized amount per case are shown in Figure 2-3. All case-based payment systems use some variation of these steps to standardize unadjusted total hospital costs for exclusions and for geographic differences in input prices. Policymakers face two basic decisions in determining standardized amounts: (1) which costs to include, and (2) whether to set a single, statewide amount or an average over a peer group of providers.

Allowable costs generally include only costs related to patient care. States use uniform cost reports (similar in detail to Medicare cost reports) to identify these costs. The cost reports include data on the numbers of admissions, days of care, and costs for each standard operating center in the hospital. Each center also reports standard units of output (pounds of laundry, square feet for housecleaning, etc.) that permit analysts to apportion overhead costs to operating centers, which in turn bill loaded rates for their services. Non-patient-related expenses, such as employee cafeterias, gift shops, and public parking lots, are excluded from the base. Hospitals must

FIGURE 2-3

CALCULATING THE STANDARDIZED AMOUNT PER CASE



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finance excluded costs completely outside the rate setting system -- generally by fees and other non-patient revenue.

A number of other costs are also excluded from the standardized amount. Outpatient department costs are carved out and paid for usually on a cost basis, although some states are experimenting with outpatient DRGs as well. Costs for capital and uncompensated care are usually separated from operating costs and reimbursed as passthroughs (possibly with limits) or through bad debt pools.

Costs associated with certain types of cases (e.g., neonates and AIDS patients) are often carved out of a hospital's cost base and paid for separately. This is done to assure adequate reimbursement for particularly costly DRGs that fall disproportionately in a few hospitals. (For examples, see the state case studies in chapters 5-8.)

Standardized amounts may also exclude some physician-related ancillary service costs, such as radiology and anesthesiology. Physician groups may find it financially advantageous to contract with hospitals to perform certain services and bill separately for both the physician and the institutional component. If the rate setting system allows physicians to bill separately for such services, hospitals that historically have included equipment (and possibly even physician) costs in their bills may shift the financial responsibility for such services to physicians to reduce their costs. Payers could end up paying twice for these services if this happens: once as part of the standardized amount and a second time as part of the physician's bill. To keep rates equitable, rate setting bodies should adjust for this type of change in allowable costs. The direct medical education (DME) costs also need to be factored out of the base, including all intern and resident salaries plus any teaching physician salaries and instructional materials, because these costs are related more to teaching than to direct patient care.

After carve-out costs are subtracted, statistical adjustments are then carried out on each facility's costs. First, a DRG case-mix index is divided into the base, effectively reducing the cost base of hospitals with an above-average case-mix costliness and vice-versa for below-average hospitals. Higher cost hospitals "earn back" their higher case-mix costs by billing more often for more expensive DRGs during the rate period. Similar statistical adjustments are often made for indirect medical education (IME), including extra testing and prolonged stays necessary to educate new physicians. Indirect education costs are complementary to the direct medical education costs of interns and residents, but the former are not readily identifiable for separate payment. In order to pay for them separately, statistical versus accounting methods must be used to remove them from the standardized cost per case for subsequent payment (described below). Finally, yet another statistical adjustment is often made for the extraordinary costs of so-called disproportionate share hospitals (DSH), which treat poor patients who have particularly severe comorbid conditions or who lack the family support for an early discharge. The case-mix, IME, and DSH adjustments lower the standardized amount for more expensive institutions, which receive extra payments at the point a patient is discharged.

Practically all state and Federal prospective rate setting systems set differential rates depending on a hospital's location and type. These adjustments are partly in recognition of different input prices that hospitals face for labor, materials, and supplies. Because area input prices are largely outside the control of hospitals, not adjusting for differences is inequitable. It would create differences in the real resources hospitals can use to treat

patients. Medicare's prospective payment system uses two distinct types of geographic adjustments. One is a continuous index to adjust for wage differences across labor markets; the other involves carving out hospitals in selected areas for special treatment. The system adjusts to the residual wage differences through an area hospital wage index. The index is applied to labor-related hospital costs, about 70 percent of total payments. Medicare also uses the wage index to adjust capital payments, which are about 10 percent of the total, and applies a cost-of-living adjustment to the residual non-wage input price differentials.

The final major policy decision in setting the standardized amount is whether to set separate rates for groups of providers. Setting group-specific rates initially may be a reasonable approach where cost factors are not well understood. The alternative is to set a base rate that is an average cost for all covered hospitals statewide, as is currently done in the Medicare Prospective Payment System. Both approaches give facilities a financial incentive to conform to average utilization and costs within DRGs. For example, if a hospital's own costs are above average, its payment, based on the average standardized cost, will be less than its costs. To eliminate net financial losses, the hospital will have to reduce its costs if a multi-payer rate setting system precludes shifting the costs to other payers.

The global standardized amount can be an average arithmetic mean cost per case across some or all providers, the geometric mean, or the median/mid-point of the distribution of costs per case. The geometric mean weights extremely high-cost cases less heavily than the average arithmetic cost per case. Therefore, the geometric mean is often lower than the arithmetic average. The median is unaffected by outliers, because it takes into account only the middle of the distribution of cases.

2.4.3 Case-mix Adjustment Using DRG Relative Weights

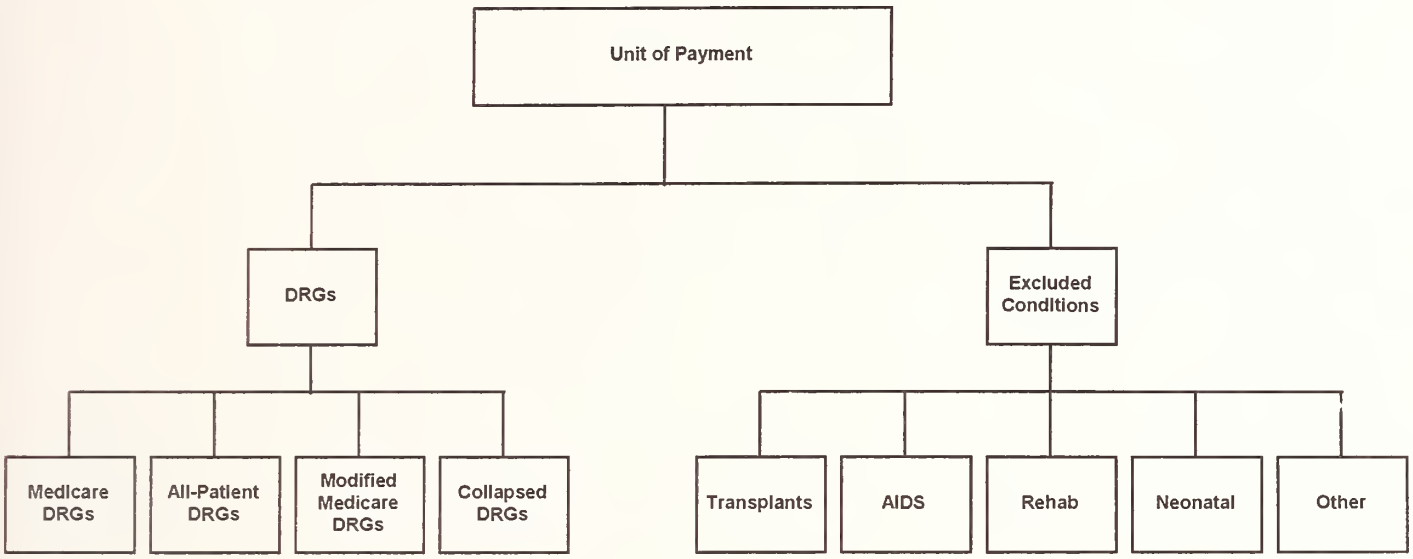
Different medical conditions require different procedures and services. These differences are recognized by virtually all payment systems. When the differences in costs are expressed numerically as an index or scale, they are often referred to collectively as a relative value scale. The numerical values for DRGs constitute a relative value scale of DRG weights.

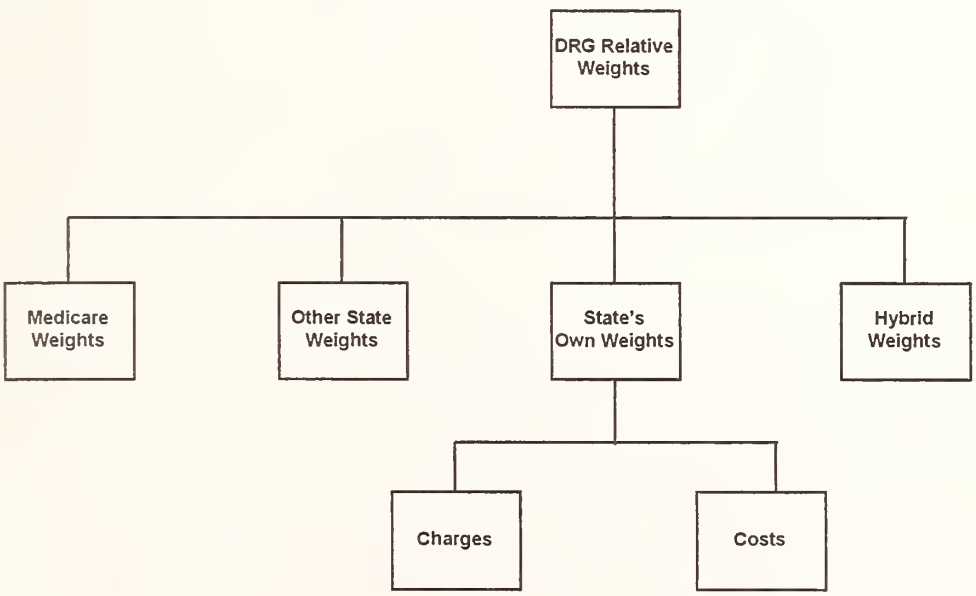
States must make two basic decisions regarding the DRG unit of payment (see Figure 2-4). First, they must decide which, if any, conditions will not be reimbursed using average DRG rates. Several states exclude transplants, rehabilitation, neonatal, and AIDS cases, reimbursing them at cost, or with a per diem or a percent of charges. This is done to assure adequate coverage for those high-cost conditions.

For cases being reimbursed using DRGs, states have a choice among using the Medicare-defined diagnostic groups, all-patient DRGs (which are much more detailed than Medicare for neonates and AIDS), other state-specific modifications of DRGs, or collapsed DRGs. For example, Oregon added neonatal DRGs based on birth weight and level of care (Carter *et al.*, 1994, p. 27). Minnesota Medicaid decided, instead, to collapse the almost 500 DRGs in Medicare to just 76. For example, in the Minnesota system, the 35 DRGs in Major Diagnostic Group 5, Circulatory Disorders, are reduced to just two groups, surgical and medical (Carter, *et al.*, 1994, p. 27).

FIGURE 2-4

POLICY DECISIONS REGARDING DRGs





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The decision on which DRG taxonomy to use depends on (1) the payer's mix of patients, and (2) the reimbursement concerns of providers. Medicaid agencies, with their usual concentration of maternity and AIDS cases, like to decompose the neonatal and AIDS DRGs to better link payment to resource requirements. In some states, providers also have argued for finer-grained DRGs to ensure adequate reimbursement for expensive cases.

The second major technical decision concerns the basis upon which the DRG weights will be determined. No state has used Medicare DRG weights exclusively, although several have borrowed some of the Federal Government's weights for some DRGs (Carter, *et al.*, 1994, p. 29). States have also adopted weights from other states; For instance, Colorado Medicaid opted to use weights from South Carolina. This saves time and effort and has merit as long as the *relative* cost differences in treating different conditions are believed to be similar.

Most of the time, though, states calculate their own weights. DRG weights are generally based on either charges or costs. Charges are more readily available but do not always reflect the costs of treating certain kinds of patients because they reflect marketing strategies and market conditions as well. Therefore, some services may be over- or underpriced, such as maternity cases (Cotterill *et al.*, 1986; Carter and Farley, 1992).

Studies have found, however, that charge-based DRGs track cost-based weights fairly closely overall. On the other hand, cost-based DRG weights require much more data and calculations to step down overhead costs to revenue departments and apportion costs across payer groups. This step-down process can reflect hospitals' strategies to maximize cost-based reimbursement rather than the true costs of each department.

The choice between charges and costs in calibrating DRG weights also determines the degree of compression, or similarity, of payment rates. Cost-based weights tend to narrow payment differences between, say, bypass surgery or other expensive procedures, and the average condition treated medically. This is because of the disproportionate amount of overhead cost (e.g., administration) that is allocated to nursing services, which make up a larger share of non-surgical admissions. To ensure that costly DRGs are not underpaid, states may prefer to base DRG weights on charges. For this reason, rate setters may prefer to use the simpler charge-based method.

Some low-volume DRG relative weights may also be quite sensitive to the inclusion of outlier cases. To avoid erroneous distortions in weights, states may wish to drop cases that fall two or three standard deviations beyond the mean DRG average cost or charge. This may have the effect of compressing DRG rates somewhat, and care should be taken not to underpay DRGs with a few very high-cost patients. A reasonable per-case outlier payment policy can correct for any individual underpayments, and states should consider DRG calibration and outlier policies as part of a broader system.

There are many versions of DRGs (Carter, *et al.*, 1994). All DRGs have changed over time as new diagnoses have been added and older groups of diagnoses have been redefined. In addition, the relative values of the individual DRGs depend on the population to which they are applied because different populations require different levels of intensity of services. For example, the relative weights for many DRGs are different for the Medicare population (which is primarily aged 65 and over) compared to the Medicaid population (which includes large numbers of children and of women of childbearing age). Similarly, the covered population in one state may not adequately reflect the demographic patterns or incidence of disease seen in another state (as is true of

California and neighboring Nevada). The weights derived from an analysis of one state's discharges might not be adequate for hospitals in another state.

2.4.4 Scope of the Prospective System

Any time the unit of payment involves bundling services, as does a DRG system paying on a discharge basis, setting rates will be constrained by current limitations in severity coding. DRGs exist for psychiatric and rehabilitation patients, but they do not differentiate provider costs very well, especially in psychiatric and rehabilitation hospitals, or special units of general hospitals. DRGs for AIDS and neonatal cases have also been found in some states to be inadequate predictors of high-cost patients, although major improvements in coding have been made in the last few years.

For these reasons, the scope of existing DRG systems has been limited. Medicare, for example, pays psychiatric and rehabilitation hospitals under the so-called TEFRA system using facility-specific per-case rates with a ceiling target amount. Several states also carve out neonatal, transplant, and other rare, high-cost, cases and pay them on a percent-of-charges or other basis.

2.4.5 Payer Rate Differentials

The standardized amount converts the DRG relative weights into dollars. Regulators may wish to maintain a common set of DRG weights across patient types but recognize legitimate differences in costs of production between two payers. Rate setting states such as New York and New Jersey have set different standardized amounts for different payer groups. Sometimes these payer-specific differences may be justified due to systematic differences in illness severity within DRG. Other differentials recognize specific actions by the payers which justify lower payments. For example, some states have set lower rates for Medicaid admissions based on the criterion of reasonable and efficient care. Blue Cross programs have also been candidates for a discounted standardized amount. They have often been the only insurers to offer coverage to costly individuals or to set community-wide premiums that implicitly subsidize persons in poorer health. Some states also set lower base rates for HMOs if the differential is justified by lower inpatient costs for the inpatients.

2.4.6 Outlier Case Payments

Systems that pay on a per-case basis typically also make additional payments for outliers--cases with costs that are so atypical for their DRG that a DRG payment "does not constitute appropriate reimbursement" (Carter, *et al.*, 1994). Rate setting systems usually identify outliers by their very long lengths of stay or very high costs. The RAND study of DRG usage by non-Medicare payers found that most private sector payers and Medicaid programs use both days and costs to identify outliers.

OBRA (Omnibus Budget Reconciliation Act) '90 requires all Medicaid programs to make outlier adjustments for medically necessary inpatient hospital care in all hospitals for infants less than one year old and in disproportionate share hospitals for all children less than six years old. However, most states provide outlier adjustments for all patients (Carter, *et al.*, 1994).

Payments for cost outliers begin with an estimate of cost for the case, usually created by applying a hospital-specific cost-to-charge ratio to charges for the case. States then pay 60-100 percent of the costs above the threshold amount. Cases qualify as either a cost outlier or a day outlier, but not both.

Almost all states pay for outlier cases with an estimate of marginal cost after a case crosses a threshold for the DRG. Day outliers usually receive a DRG payment plus a per diem for each day beyond the threshold. The analogous high-cost outlier payment is a fraction of costs above a threshold amount. The threshold(s) are usually DRG-specific and based on the mean and standard deviation of length of stay (LOS) and cost in the DRG.

The day outlier per diem is usually calculated as a fraction of the average cost of a day in the DRG. Those per diems equal the average cost of a day times a multiple running from 0.6 (in most cases) through 0.75 (Kansas) to 0.8 (S. Dakota and Colorado). Some states reduce the per-diem amount for exceptionally long outliers. Others (e.g., Michigan) provide a nursing facility per diem in cases where the long-stay outlier required less than continuous acute care during the stay.

Carter *et al.* (1994) found that some payers treat some or all outliers as if they were an entirely different class of case and provide payment related to the total cost of the case, rather than to the cost of the case after it passes the threshold. For example, New Mexico Medicaid pays 90 percent of estimated outlier costs. Ohio pays full estimated cost for all cases with costs in excess of $250,000. Ohio pays 85 percent of estimated costs for cases in eight hospitals that have very high outlier experience and very high Medicaid volume, and for AIDS DRGs in hospitals identified as serving a large number of AIDS patients. Montana puts aside a limited amount of funds that, at the end of the year, are apportioned across cases with billed charges exceeding $125,000. Finally, New Hampshire puts aside a pool for catastrophic cases to be used "at the sole discretion" of a state office.

Six states also recognize short-stay, low-cost outliers. Iowa defines short-stay outliers as cases with stays less than two standard deviations below the mean. Such cases are paid twice the average DRG daily rate because diagnostic and therapeutic procedures occur more frequently in the first day(s) of an admission. In Michigan, short-stays (usually one day) are paid a percentage of charges. New Jersey short-stay outliers are paid an estimate of the average daily cost of such cases. In New York the short-stay per diem is approximately 1.5 times the inlier per diem for the DRG. In all states, short-stay outlier payments are capped at the DRG rate.

To calculate outlier rates, per-case payment systems need data on each admission's length of stay, major diagnoses, and charges for room, board, procedures, and treatments. Further, to discourage unnecessary admissions, per-case payment systems require data to conduct preadmission review on individual patients.

2.5 REGULATED PAYMENT PER SERVICE: AN ALTERNATIVE TO DRGS

The primary alternative to a case-based hospital reimbursement system is payment per service (e.g., per x-ray, day of room and board, or minute in the operating room). Maryland is the only state currently using this approach (see Chapter 5).

Unlike the per-case approach, with individual services bundled under an all-inclusive DRG payment, a per-service system pays regulated charges for the unbundled array of services received by each patient. This results in differing amounts for each patient, as illustrated in Figure 2-5. Rate setters first establish a set of allowable prices for individual services. In nursing, for example, a daily general per diem is used, PAY1. Most hospitals have ICUs with a higher daily rate, PAY2. A particular patient's allowable nursing payment is determined by multiplying the regulated per-diem prices times the number of days spent on the routine floor and in the ICU, DAYS1 and DAYS2, respectively. The same cumulative process is carried out for all the other services used by a patient during a stay. The sum total becomes the total allowable payment for direct care services.

Next, any recognized add-ons are included for capital, medical education, uncompensated care, etc. Finally, a payer discount, if allowed, is subtracted, to arrive at the net total allowable payment.

The regulated payments per unit of service can be either hospital-specific or based on amounts averaged across hospitals, in which case the costs would be standardized for area wage differentials as described in section 2.4.2 for DRG reimbursement.

The costs of capital, medical education programs, and care provided to low-income patients pose the same problems for unbundled rate setting systems as they do for systems that set rates per case. In both situations, policymakers also must decide on appropriate adjustments to the rates for inflation and other changes over time. Uncompensated care costs must also be addressed. These topics are considered separately beginning in section 2.6.

2.5.1 The Limit of Payment and the Locus of Utilization Control and Financial Risk

Payments per ancillary test, respiratory therapy treatment, or minute in the operating room place payers directly at risk in the short run for the number of services delivered to patients. If a patient receives more services during an inpatient stay, the hospital's net allowable payment is higher and so are the payer's outlays. Hospitals and physicians bear none of the risk for excessively intensive stays.

One way to counteract this "intensity bias" in per-service payment is to place a cap on each hospital's aggregate inpatient spending per case. Maryland had to impose a cap on overall hospital revenues, using per-case volume adjustments based on marginal operating costs. Chapter 5 describes this system more fully.

In a system with unbundled payment units, payers assume the general risk for the rare but exceptionally costly hospital stay. If a patient requires a longer-than-average stay or an above-average intensity of services, the

FIGURE 2-5

REGULATED PAYMENT METHOD

Regulated Payment Per Unit of Service	x	Total Units Of Service Per Patient	=	Total Allowable Payment

Nursing Services

PAY1 (General)	X	DAYS1	=	TAP1
PAY2 (ICU)	X	DAYS2	=	TAP2

Operating Room

PAY3	X	HOURS3	=	TAP3

Laboratory

PAY4	X	# TESTS4	=	TAP4
PAY5	X	# TESTS5	=	TAP5
PAY6	X	# TESTS6	=	TAP6
PAY7	X	# TESTS7	=	TAP7
PAY8	X	# TESTS8	=	TAP8

Total Direct Allowable Payment

\+ EXTR ADD-ONS (Capital, Medical Education Uncompensated Care, etc.)

Total Allowable Payment

\- Payer Discount (%)

Net Total Payment

hospital automatically is reimbursed for the extra care. Hence, no special outlier payment is required using regulated charges as under a DRG system. To reduce their financial risks, payers can monitor stays and service utilization and disallow inappropriate treatment. Utilization review is costly, however, and some insurers are too small to efficiently implement rigorous review. Those that do have been able either to pass these costs through to the consumer or to keep direct patient care costs under control.

Hospitals can be placed at risk for aggregate service levels only by capping total revenues in some way. Payment caps, on the other hand, penalize hospitals for unexpected declines in utilization because lower revenues will not fully cover fixed costs. Rate setters might wish to place the risk for unreimbursed fixed costs on payers by adjusting future rates upwards for past volume declines. However, to accomplish this, the system requires annual data that differentiate fixed and variable costs and service volumes. Only the most complicated micro-cost systems provide an accurate estimation of fixed costs, and they are available in only a few large hospitals.

2.5.2 Case-mix Adjustment on a Per-Service Basis

One of the great strengths of per-service payment is that it automatically allows payments to vary by the type and severity of illness. If patients require a different mix of services and procedures, their bills and payments automatically reflect those differences.

Per-service payment may create incentives for hospitals to provide more services per admission unless there is a hospital-specific global revenue cap. If such a cap is implemented, the measure of aggregate revenues must take account of changes in the mix of cases over time to avoid penalizing hospitals admitting more complicated cases. Inevitably, controlling intensity growth requires indices of case-mix severity. DRG case-mix indices are the most popular among states applying ceilings on revenue growth. See Chapter 5 (Section 5.5) on how Maryland adjusts its ceilings for case-mix changes.

2.5.3 Scope of the Prospective System

Another strength of a regulated charges rate setting system is that it can be applied in all types of hospitals without exclusions. State Medicaid programs, in fact, often set per-service payment schedules for all types of providers. This is possible because a per-service payment system automatically adjusts for differences in treatment patterns across hospitals, such as psychiatric and children's facilities, through its disaggregated billing methodology.

In applying per-service rates to all hospitals, policy makers may want to cap per-case revenues. If so, difficulties arise in adjusting global budgets for case-mix severity in rehabilitative or children's hospitals. As a consequence, policy makers may exclude certain facilities or cases from the global caps and simply reimburse on a per-service basis.

2.5.4 Payer Rate Differentials

Setting payment rates per service instead of per case eliminates a major reason for allowing different discounts for different payers. This is because differences across payers in the amounts of services provided per patient are automatically taken into account. For example, if an HMO enrolls a younger, healthier population than another insurer and the HMO keeps its utilization in the hospital lower, its payments will automatically be lower, unlike payments under the flat per-case DRG system.

Policymakers may still grant discounts from the base rates if payers pay promptly or engage in other activities that increase people's health-care coverage or reduce costs. For example, under a per-service rate system, payers that use community rating or offer non-group policies could be extended a lower rate. Medicaid could also be given a lower rate on all services because it covers many of the previously uninsured or especially costly cases.

2.6 UPDATING HOSPITAL PAYMENT RATES

Sections 2.4 and 2.5 have described two alternative ways of setting hospital rates. Each section emphasized the elements unique to either bundled payments or regulated charges. The rest of the chapter discusses issues common to all rate setting systems, beginning with the various ways in which rates are updated.

An important element of a regulated hospital payment system is the annual update factor for payments. Ultimately, the year-to-year update in rates is somewhat discretionary and may reflect availability of funds, the hospital industry's financial condition, and access to care problems. However, it is useful to have a systematic method of determining a reasonable baseline update factor. Both the Health Care Financing Administration (HCFA) and the Prospective Payment Assessment Commission (ProPAC) have developed methods for updating Medicare's prospective payment rates to hospitals. The annual update factor includes adjustments for the following:

- Market basket inflation.
- Scientific and technical advancement.
- Productivity improvements.
- Hospital case-mix change.

The final recommended update is the sum of these four components. Although few states apply the Medicare update method without changes, its four-part structure is useful in examining the policy issues for updating any regulated rate system.

In addition, rates can be adjusted on a hospital-specific basis for extraordinary changes in utilization that affect average costs, or all rates can be rebased using more current hospital cost reports. "Rebasing" is discussed in Section 2.6.5.

2.6.1 Market Basket

The market basket HCFA uses to measure inflation in hospital input prices is shown in Table 2-1. The weights, which sum to 100 percent, were derived by HCFA from American Hospital Association (AHA) Annual Survey data, U.S. Department of Commerce Bureau of Economic Analysis input/output data, and other data. The weights indicate the relative importance of each cost category in total hospital expenditures. Employee compensation, including wages, salaries, and fringe benefits, is the dominant category, accounting on average, for 62 percent of hospital costs. Inflation in each of the cost categories is measured by a price index. HCFA uses either producer price indices (PPIs), consumer price indices (CPIs), average hourly earnings (AHEs), or Employment Cost Indices (ECIs) to measure price changes. A special blended index of ECIs and AHEs by occupation is used to measure changes in wages and salaries and in employee benefits. Changes in the price indices are weighted by the cost category weights to estimate overall inflation in hospital input prices.

Carter *et al.* (1994) surveyed 21 Medicaid programs currently using some version of DRGs to pay hospitals. Of these, six used the Medicare market basket *in toto* to update rates -- often with caps on growth rates. The rest used different approaches. Hospital input price inflation in a particular state could differ from the national average measured by the Medicare PPS market basket either because the relative importance of the cost categories in the state's hospitals is different from the national average, or because price changes in the state differ from the national average.

Cost weights for a state can be developed using hospital cost report data or AHA Annual Survey information. Several states, such as Minnesota, use their own cost weights. Price changes in a state can also deviate from the national average, and several Medicaid programs, such as those of New York and Texas, have developed their own price indices. Bureau of Labor Statistics' ECIs, CPIs, PPIs, and AHEs are often available on a regional basis, although not on a state-specific basis. Regional inflation trends can be compared to the national trends. State-specific trends in labor compensation per hour or per FTE can be computed from the HCFA Hospital Wage Survey or the AHA Annual Survey, and compared to changes in HCFA's national "blended compensation index." Then, state-specific cost shares can be combined with the regional or state-specific price proxies to simulate the effects of a state-specific versus a national market basket.

2.6.2 Scientific Advances

This adjustment is intended to fund new medical treatment modalities and new technologies that increase costs but are at the same time cost-effective. New treatments could include newly developed pharmaceuticals,

TABLE 2-1

COMPONENTS OF THE MEDICARE PPS HOSPITAL MARKET BASKET

Category of Costs	Weight	Price Proxy
Wages and salaries	52.2	HCFA Blended Compensation Index
Employee benefits	9.5	Index of employee benefit ECIs
Other professional fees	1.7	ECI professional and technical workers
Energy and Utilities	2.4	
Fuel oil, coal, and other fuel	0.6	Producer Price Index (PPI) middle distillates
Electricity	1.1	PPI industrial electric power
Natural gas	0.3	PPI gas fuels
Motor gasoline	0.2	PPI gasoline
Water and sewerage	0.2	CPI water and sewerage maintenance
Professional liability insurance	1.4	Percent change in malpractice premiums from HCFA survey of insurers
All other products	21.8	
Pharmaceuticals	3.9	PPI ethical (prescription) preparations
Food		
Direct purchase	2.1	PPI processed food
Contract service	1.2	CPI food purchased away from home
Chemicals	3.1	PPI industrial chemical products
Medical instruments	2.7	PPI medical and surgical instruments
Photo supplies	2.6	PPI photographic supplies
Rubber and plastics	2.3	PPI rubber and plastic products
Paper products	1.4	PPI composite paper price index
Apparel	1.1	PPI textile house furnishings
Machinery and equipment	0.5	PPI machinery and quipment
Miscellaneous products	0.8	PPI all finished goods
All other services	11.0	
Business services	3.8	AHE business services
Computer services	2.0	AHE computer services
Transportation and shipping	1.2	CPI transportation
Telephone	1.0	CPI telephone services
Blood services	0.6	PPI blood and related biologicals
Postage	0.4	CPI postage
All other services: labor intensive	1.2	ECI all service workers
All other services: nonlabor intensive	0.8	CPI all items

NOTE: PPI = Producer Price Index; CPI = Consumer Price Index; AHE = Average hourly earnings; ECI = Employment Cost Index.

SOURCE: Federal Register, September 4, 1990.

diagnostic tests and machines, and even surgical techniques that are not accounted for in the existing DRGs. States could use the national scientific/technical progress factors developed by ProPAC that appear in the Commission's annual reports, or use an adjustment based on state-specific goals, e.g., holding intensity growth to half a percent a year.

2.6.3 Productivity and Efficiency Gains

States, like the Federal Government, may also wish to set a target or goal for hospital productivity improvements. It can be expected that hospitals will become more efficient over time by adopting better patient care management strategies, purchasing strategies, and inventory management; applying new information technology, etc. In the absence of hospital-specific information, often an economy-wide rate of productivity improvement has been expected of hospitals. HCFA has assumed that hospitals should be held to at least the rate of growth in economy-wide labor productivity (roughly 1 percent annually). ProPAC, by contrast, conducted extensive analyses of hospital productivity change that show significant improvements at the department level (see ProPAC, 1987). More recently, ProPAC has taken the position that scientific and technical progress can be funded out of hospital productivity improvements. Thus, states may decide to assume no extra add-on beyond projected inflation in input prices.

Both HCFA and ProPAC have also made allowances in the update factor for changes in the site of care. Under per-case payment, incentives to shift care to an outpatient setting have led to shorter stays and additional billings elsewhere in the health system. Consequently, baseline standardized amounts may result in "double billing" for services originally included in the hospital's cost base. Data on inpatient admissions and outpatient visits or revenues can be used to adjust baseline payment amounts downward for shifts in care to the outpatient setting.

2.6.4 Adjustments for Case-mix Change

Under a DRG system, hospitals can increase revenues by "inflating" their case mix, i.e., reporting slightly more complex DRGs than they actually have experienced. In the first few years of prospective payment, ProPAC estimated that a rising DRG case-mix index (often called "DRG creep") effectively doubled the allowed update of DRG rates. The case-mix component of the update factor is intended to offset this shift toward more complex DRGs. ProPAC recommends an annual case-mix adjustment based on an estimate of real DRG case-mix change. For example, if observed DRG case-mix change is 2.7 percent, and across-DRG case-mix change is determined to be 1.5 percent while the within-DRG case complexity increase is found to be 0.7 percent, the update factor is reduced by 2.7 - 1.5 - 0.7 = 0.5 percentage points.

Estimating real changes in case mix is quite challenging. Across-DRG estimates have been made by analyzing the shift from less to more complex DRG pairs (RAND, 1985; ProPAC, 1986) and by reabstracting

medical records and comparing original with recoded data (for example, pneumonia with or without complications) (ProPAC, 1994). Within-DRG "creep" has been analyzed by Systemetrics using the company's disease staging system that keys on comorbid conditions and stage from the discharge abstract (ProPAC, 1994).

Making an estimate of real case-mix change and within-DRG case complexity for a single state could be expensive, and using ProPAC's national estimate may be acceptable. Another strategy, is to limit payment increases due to case-mix increases to a fixed amount each year. New York State, for example, limits payment increases due to DRG case-mix changes to 1 percent per year. Any increase in outlays in excess of 1 percent is used to lower the update factor in the following year. A disadvantage of this method is that it is arbitrary and could lead to inequities among hospitals.

2.6.5 Volume Adjustments

States may be interested in making adjustments to the annual updated rates for excess or declining volumes. The need for, and method of determining, volume adjustments depend upon the rate system. In a DRG or other per-discharge system, incentives exist for hospitals to shorten stays and monitor the intensity of care delivered in an inpatient setting; hence, specific adjustments for long stays or excess intensity would not be required. Of more concern would be a growing frequency of admissions, as providers have clear incentives to admit more patients. That admission rates actually fell when Medicare implemented its per-case system has been attributed to a vigilant utilization review process. Every payer could be responsible for reviewing the appropriateness of admissions, although this could be centralized in a single review body in an all-payer system. Assuming the centralized review process was acceptable to each payer, every approved admission would be considered appropriate and no additional rate adjustment would be necessary.

Other rate systems using a different unit of payment may require volume adjustments in order not to overpay or underpay providers for the costs they actually incur. New York's previous per-diem system encouraged very long stays. Costs associated with inappropriate days were taken out of each hospital's rate base. In Maryland, hospitals are paid approved charges for separately billed services. Massachusetts formerly had a similar system. Any system that pays hospitals for individual services encourages excessive growth in intensity. Both systems responded to the problem by capping the overall revenue growth of individual hospitals. Maryland, for example, sets an allowable rate of intensity growth controlling for DRG case mix, and takes any excesses out of the next year's update.

Another form of volume adjustment is for volume changes during the rate year that are assumed to affect costs. If a hospital's volume increases during the rate year, costs usually rise, but only by the portion that is sensitive, or variable, with respect to the unit of payment. Under Medicare's prospective payment system, all discharges are paid the full "average allowable DRG payment" under the (implicit) assumption that all costs are variable. By contrast, several states using a per-case, per-diem, or per-service payment unit have established "volume corridors," or range of utilization change within which no adjustments are made for volume changes. For

volume increases or decreases outside the corridors, rates are adjusted. Medicare has also applied the concept of marginal, or variable, costs in paying for long-stay outliers.

States create volume change corridors to set next year's rates by, first, establishing a set of variable cost proportions depending upon the size of the volume change, then calculating the expected increase in costs, and finally adjusting the facility's allowable cost base and rates in the next rate period. This is intended to address overpayment or underpayments during the year in which the volume change occurred. For example, if discharges increased 5 percent, rate setters might apply a 50-percent variable proportion and allow only a 2.5-percent increase in payments. Because payments have already been made during the year, next year's rates must be reduced to account for the 2.5-percent overpayment. Conversely, rate setters may assume that only 20 percent of costs are variable if volume falls 5 percent. In this case, the hospital has experienced a 5-percent reimbursement decline but its costs are assumed to have fallen only 1 percent. Next year's rates are automatically increased by 4 percentage points to account for the underpayments.

Some states (Maine for example) making rate adjustments based on volume changes have used regression methods to estimate marginal costs. Average cost per discharge is regressed on each hospital's total discharges over several periods, holding case mix, wages, outpatient volume, and other cost-influencing hospital characteristics constant. In Maine, 50 percent of costs were found to vary with the number of discharges (Cromwell *et al.*, 1991), but the degree of cost sensitivity varied by the size of the volume change. Within a corridor ranging from -10 percent to +5 percent, all costs appeared fixed. Where annual volumes fell more than 10 percent, however, 82 percent of costs were variable. When discharges increased more than 5 percent, roughly 70 percent of costs were variable.

Making volume adjustments using marginal cost adjustment factors has the advantage of not overpaying growing hospitals for their fixed costs while assisting facilities experiencing short-run volume declines. The absence of volume related rate adjustments puts more pressure on hospitals to maintain volumes and allows the competitive process to work more quickly in establishing financial winners and losers. Volume adjustments, in contrast, tend to protect the financial status of hospitals that lose business in an era of declining occupancy.

Yet another form of volume adjustment to future rates involves underutilization of beds and services. A few rate systems, such as those of New York and Maryland, have debited payment rates for low occupancy rates (discussed above) to encourage the more efficient use of inpatient resources. New York, for example, set target occupancy rates for different hospital groups, urban vs. rural, and compared the desired number of inpatient days with the actual number. Any shortfall in days resulted in a lower update in next year's rates. In Maryland, the occupancy adjustment applies only to capital costs (described in more detail below in this chapter as well as in Chapter 5).

2.6.6 Rebasing DRG Weights and Standardized Amounts

Updating baseline rates over a prolonged period can introduce equity and efficiency distortions. Long-run changes in technology, market competition, resource costs, practice patterns, etc., can imply significant changes in DRG relative payment weights. Updates using more current charge information can be used to recalibrate the relative weights, but the problem of unequal underlying cost trends by different hospital types remains. Rural hospitals, for example, may experience extraordinary cost increases outside their control, as might hospitals treating large numbers of the inner-city poor.

Rebasing may or may not be "budget neutral." Budget-neutral rebasing would simply adjust the payment amounts without increasing total payer outlays. If industry costs have greatly exceeded or fallen short of annual updates, payers may wish to rebase on actual costs (or some fraction thereof). Without rebasing, some hospital groups may be systematically underpaid and forced to close, jeopardizing access. Care must be taken, however, not to penalize individual hospitals that have achieved real efficiency gains. This implies a rebasing process based on a global characteristic such as teaching status or location.

To rebase the payment system, rate setters will need access to current hospital cost reports. New average adjusted costs per discharge (or procedure) would be calculated as in the original design phase. Rebasing would then recalibrate the entire system based on each facility's new adjusted costs. This would change the DRG relative weights, realigning them with current costs (instead of charges). The various system parameters (such as the indirect medical education allowance) would also change, as would any peer group standardized amounts (for instance, urban versus rural standardized amounts). If average cost inflation prior to rebasing fell short of the update in rates, payers would save on future rates, and vice-versa if cost inflation exceeded updates. Rate setters could make the new rates budget neutral by multiplying the new standardized amounts by the ratio of the new to the old standardized amounts. Although budget-neutral rebasing would not cost payers more or save them money, it may still be worth doing on equity and efficiency grounds by aligning payments more closely with true costs.

2.7 PAYING FOR CAPITAL

Any state rate setting system whether it uses bundle payments or regulated charges, must consider how to reimburse capital costs.

2.7.1 Why Treat Capital Costs Differently?

Capital differs in fundamental ways from operating expenses. First, capital by definition is durable. Buildings and medical equipment yield a flow of services over a long period of time. Hence, the cost of capital involves an intertemporal element absent from the cost of supplies or labor services. Second, capital expenditures are infrequent and large. This creates a "capital cycle," unique to each provider, when major building expansion or

renovation is undertaken. Third, hospitals' capital funding requirements are far less sensitive to changes in services provided than are operating costs, and rate setters should be careful not to overpay or underpay for capital costs linking payment to output. And fourth, capital embodies most of the technological change occurring in medicine. Thus, setting the rate of increase in allowable capital costs is tantamount to determining the allowable rate of technical change.

Capital does not necessarily have to be reimbursed separately in a rate setting system. Payment for capital can be folded into all-inclusive capitated or fee-for-service rates as is now done for insurers paying discounted charges. Medicare and some state DRG rate setting systems (e.g., Washington State) also fold capital into the per case payment. There are several reasons, however, why capital costs might receive special consideration in a rate setting system. First, if payment rates are to be based on "efficient" provider costs, capital costs must be identified and evaluated. Second, if any exceptions or exemptions are desired for particular hospitals, the capital costs of those hospitals need to be estimated. Third, rate setters may wish to adjust capital reimbursement for hospital volume changes other than on a strict per-discharge or per-service basis in order to pay closer to true marginal costs. Finally, rate setters may wish to reduce hospital financial risk through special treatment of large, fixed, capital costs.

2.7.2 Definition of Capital Costs

Capital represents a provider's stock of physical assets -- the buildings, plant, land, and equipment. Standard accounting definitions are used by all hospitals based on the concept that a capital item is not used up during a year but continues to produce services over two or more periods. Annualized capital costs are classified under six broad categories: depreciation, interest, rents, leases, return on equity, and other capital-related costs.

Depreciation of building and equipment assets is usually the single largest capital cost component and is based on the asset's purchase price less its salvage value divided by each asset's expected lifetime. Medicare requires that depreciation be paid on a uniform straight-line basis over the usable life of the asset, but a state may wish to allow hospitals to "accelerate" depreciation by increasing allowances in an asset's early years.

Interest expense related to patient care is also considered an allowable capital cost under Medicare and for other insurers as well. Most borrowed funds should be used to acquire land or depreciable assets, however, and not simply to replace working capital. Interest payments are often reduced by investment income earned by the hospital with limited exceptions (such as investment income from gifts and grants, a qualified pension fund, or funded depreciation).

Leases and rentals are allowable capital expenses, since the assets would be depreciable if owned by the hospital.

Lacking community donations and bequests, proprietary hospitals need to raise equity capital to build and expand. Insurers paying discounted charges have always included an implicit profit in their rates. State rate setting systems in New York, New Jersey, and Maryland, as well as Medicare prior to PPS also have recognized a

return on equity as a legitimate capital cost. Under PPS, Medicare eventually eliminated hospital-specific equity payments. One rationale was to put nonprofits and for-profits on a level playing field with respect to capital. Another was that if hospitals needed to make a profit, they could do so either by increasing productivity or by raising prices to other payers. Both Medicare and the states have accepted the legitimate argument for equity capital in replacing obsolete buildings and equipment and now routinely update depreciation allowances for building and equipment inflation in lieu of a return on equity. See section 2.7.6.

Other capital expenses may include asset insurance, costs of minor equipment, taxes on land and depreciable assets, and capital costs of related organizations.

There are thousands of different capital items in a hospital. To simplify rate setting, items are often grouped into buildings/land, fixed equipment, and movable equipment. Rate setters usually distinguish among the three types of capital in calculating an average prospective rate, as facilities differ considerably in their capital mix and annualized accounting costs.

2.7.3 Five Approaches To Paying For Capital

All rate setting systems must set a basis of payment for capital costs. These systems fall into five classes: (1) Cost reimbursement; (2) global budgets; (3) hospital-specific trended amounts; (4) all-inclusive per-case (or per-diem) rates; and (5) a capital facilities allowance.

2.7.3.1 Capital Cost Reimbursement. Capital may be paid for by simply reimbursing hospitals for whatever they spend on capital instead of limiting payment to fixed prospective rates. However, responsibility for such costs still has to be allocated among payers on some volume basis. The major advantage of paying incurred capital expenses is that it recognizes all hospital-specific differences in capital structures and needs. Another advantage of a cost pass-through is its administrative simplicity. No planning or determination of appropriate cost levels is required, and no payment update factors need to be developed. Identifying capital-related costs eligible for pass-through, on the other hand, adds significantly to the provider's cost reporting requirements.

As is well known, the primary disadvantage of any cost pass-through is that it fails to provide incentives for efficiency. Often, too many beds are built, too little cost-reducing innovation occurs, the lowest purchase prices or interest rates are not sought out, refinancing when interest rates fall is not pursued, capital projects are not postponed when interest rates are high, capital is replaced too quickly, and there is too much new capital and not enough renovation or maintenance. Furthermore, if operating costs are reimbursed prospectively while capital expenses are passed through, a strong incentive exists to inefficiently substitute capital for labor.

One way to offset inefficiencies resulting from paying incurred capital costs is through direct government regulation of capital expenditures. The state-level Certificate of Need process, requiring prior regulatory approval of capital projects, could provide an alternative way of avoiding unnecessary capital expenditures. Unfortunately, the evidence in support of a rigorous, binding, capital review process is weak.

2.7.3.2 Global Capital Budgets. Instead of simply passing through capital costs, rate setters could set a global budget for the entire facility (or possibly just the inpatient side). Provincial, state, and federal governments in Canada, England, Germany, and France all play a direct role in setting both operating and capital budgets for each hospital. Globally, these governments determine how much money providers need in order to cover existing plus approved capital assets and then ensure these needs are met and no more.

There have been very few experiments with European-style global hospital budgeting in the United States. Rochester and Finger Lakes in upstate New York are two isolated examples that have not been replicated elsewhere. Maryland's Guaranteed Inpatient Revenue system and Massachusetts' Hospital All-Payer system (now repealed) were designed to contain the flow of *total* revenues to hospitals, including capital. Historical capital costs were included in the base year and trended forward along with operating costs using an all-inclusive hospital inflation factor. Under "guaranteed revenue" systems, underprediction of volumes by rate setters results in excess revenues for fixed capital costs at the end of the rate year. Over-prediction of volumes results in inadequate revenues to cover fixed costs. In either case, payers either make lump-sum settlements to cover fixed costs or increase next year's rates to make the facility whole.

2.7.3.3 Hospital-Specific Trended Capital Payment. An alternative to global budgets or cost reimbursement is *trended* capital payments based on each hospital's own capital requirements in some base period. Historical depreciation, interest, and other capital-related expenditures in the base period would be trended forward separately for each facility using a single capital update methodology. The trended amount could be an aggregate amount independent of volume changes or be calculated on a per-day, per-discharge, or fee-for-service basis. It could also be considered a target amount, or ceiling, similar to the method currently used by Medicare to pay for operating expenses in PPS-excluded, so-called TEFRA, facilities. As a target, or ceiling, the facility would receive the lesser of actual capital expenses and the target.

The principal advantage of hospital-specific capital payment is that it allows for unique differences in base period capital outlays while applying a single update factor constraining the growth in capital costs to the same rate for all hospitals. However, the disadvantages of trended costs are many. First, and most salient, is that as hospital market, case mix, and production conditions change, the baseline capital costs, even after updating, become increasingly irrelevant to current costs. This is especially true if only aggregate capital expenses are trended, ignoring volume changes. But even if capital costs are trended on a per-discharge basis, new technologies and shifts in inpatient bed requirements in an area may call for very different capital outlays in individual hospitals. Another disadvantage is that when a baseline year is chosen, hospitals are "caught" at different points in their investment cycle. Facilities with "old" depreciated capital will have very low capital outlays and a uniform trend factor may not give them the money to replace their own buildings. The opposite is true for "new" hospitals with very high capital costs.

A variation on hospital-specific trended payment would be to rebase capital costs by facility every few years. Then "old" hospitals that have renovated would have their base significantly increased, while "new" hospitals would have their base reduced due to accumulated depreciation. Rebasing could be "budget neutral" in the sense that totally rebased capital costs could be limited to base period capital costs after updating for capital cost inflation. This would be a hybrid of sorts between hospital-specific and aggregate industry global budgeting.

2.7.3.4 All-Inclusive Per-case (or Per-diem) Payment. A fourth approach to paying for capital is to make it part of an all-inclusive hospital payment on a per-discharge or per-diem basis. An all-inclusive per-case payment differs from trended payment in that providers receive a prospective average payment upon submission of bills without retrospective settlements (if trended amounts are used as a ceiling).

The new Medicare payment system pays for capital on a prospective per-case basis. During a 10-year transition from fiscal years 1992 through 2001, payments will reflect both hospital-specific capital costs and a single Federal capital payment rate. It represents a hybrid of hospital-specific and per-case national average capital payment. (States could substitute their own statewide average amounts during transition.) A facility's hospital-specific payment rate equals its own total allowable base year inpatient and other capital-related costs divided by the number of Medicare discharges in the base period, then adjusted for case mix and transfers and updated to the current year. The Federal rate is the 1989 *average* Medicare capital cost per discharge, updated to the current year.

During transition, hospitals are paid according to either a fully prospective or a "hold-harmless" method, whichever is higher. Under the fully prospective method, the blend was 90-percent hospital-specific and 10-percent Federal in fiscal year 1992, with the Federal weight increasing 10 percentage points until fiscal year 2001, when it will be 100 percent. Medicare further distinguishes reimbursement of "old" versus "new" capital, the former defined as obligated assets in use as of a specified date. The intent was to recognize existing capital costs and ease the transition to a prospective system with entirely "new" capital. Old capital is paid (with limits) based on actual reasonable costs while new capital is paid the Federal (could be statewide) average amount. Payments are multiplied by the DRG weight for each case and also adjusted for geographic cost differences, teaching intensity, disproportionate share status, and outliers. As in the case of operating expenses, payment rates for capital are updated annually to take account of changes in prices and other considerations.

The principal advantage to a long transition with further recognition of existing capital obligations is that it gives hospitals time to alter their facilities in response to the new payment incentives. The major disadvantage is that identifying old from new capital requires vary detailed and laborious cost accounting and analysis.

2.7.3.5 A Capital Facilities Allowance. Most prospective rate systems define capital spending in the traditional way as leases, rentals, interest on capital-related borrowing, and a depreciation allowance. An alternative used in Maryland is to establish a capital facilities allowance for buildings, with the intent of not fully funding a depreciation reserve. Under the plan, the hospital chooses each year the larger of either its own capital

cash requirements (for instance, debt principal and interest, lease payments) or a replacement allowance that is then worked into the set of allowable charges for all payers. Capital cash requirements include the usual capital costs *except* for a depreciation allowance. Therefore, in years in which a hospital chooses to be reimbursed just its capital requirements, it is not adding to a fund to replace buildings or equipment, nor does it have the extra depreciation allowance to cover current operating expenses.

The capital replacement allowance in any year is based on the difference between a capital fund replacement target and the current accumulated capital fund balance, divided by the average remaining lifetime of existing plant. The accumulated capital allowance fund is similar to a depreciation fund, with one important difference: the target is defined as only 20 percent of the hospital's cost of replacing its stock of beds. This limitation is set under the assumption that *all* hospitals will fund the rest of any replacements out of accumulated equity or debt financing. This cost is determined by the rate setting authority by setting an "ideal" bed target for the facility (see Appendix A) and then multiplying the desired number of beds by an estimated replacement cost per bed. Each hospital's bed target is the sum of its own average number of *occupied* beds last year plus any additional beds needed in its market area.

The rationale for using a capital allowance instead of paying historical depreciation and interest is twofold. First, rate setters may not want to completely fund all depreciation if a facility is seriously underutilized. Second, hospitals considered high risk incur higher interest rates, and rate setters may not want to automatically pass these interest costs through to payers. Setting a facility allowance independent of debt service requirements establishes incentives to obtain lower interest rate loans and maintain a strong equity position for future borrowing.

2.7.4 Geographic and Other Facility Adjustments and Exceptions

Like operating costs, capital costs may not be uniform geographically. Moveable equipment is generally thought to be bought in national markets with minimal regional price variation, but construction costs of buildings and fixed equipment (involving carpenters, electricians, plumbers, lumber, concrete, reinforced steel, brick, etc.) do vary significantly across areas, even within a state. Materials costs, for example, may be greater in remote areas with high transportation costs. Large, heterogeneous states (like New York and California) should consider intrastate geographic adjustments.

If payment is based (at least in part) on a hospital's own capital costs, by means of either a cost pass-through or a hospital-specific trended amount, then no further geographic adjustment is needed. On the other hand, if payment is based on an amount per hospital or per case averaged across hospitals, as in Medicare's prospective capital payment system, then a separate geographic adjustment may be warranted. Medicare bases the adjustment on the hospital wage index used to adjust payment for operating expenses. Alternatively, an index of input prices for construction materials and labor could be developed across a state. This index would include the wage rates of bricklayers, carpenters, electricians, etc., and the prices of structural steel, lumber, and concrete in

different areas. Several indexes of construction input prices are available from private vendors (for example, Marshall and Swift, Inc., based in Los Angeles, California).

Payment for capital may need to be adjusted for variations in hospital characteristics other than location in order to preserve payment equity across hospitals. In particular, extra add-ons may be desired for major teaching hospitals and disproportionate share hospitals. Based on HCFA analyses, Medicare's prospective capital payment for urban hospitals with 100 or more beds includes a disproportionate share payment adjustment of approximately 2.0 percentage points for each 0.10 increase in a hospital's disproportionate share patient ratio. Individual states may wish to re-estimate the add-on or use another approach altogether.

A goal of hospital capital payment policy should be to discourage excess capacity. If capital payment is made on a per-discharge basis, excess capacity is automatically penalized because revenue is proportional to the number of cases. Under other payment systems, such as reasonable cost pass-through or hospital-specific trended amount, excess capacity is not necessarily penalized. Occupancy adjustments provide a means of introducing financial penalties for unneeded beds, targeted at the most underutilized facilities. It should be noted, though, that occupancy penalties do not provide incentives for an appropriate amount of capital *per bed*. The interested reader is referred to Appendix A for more detail on how the penalties could be determined.

States, like the Federal Government, may wish to exempt certain hospitals altogether from the standard capital payment rules. Small rural "essential access" hospitals might be candidates for exemption from prospective capital payment. These hospitals tend to have low occupancy; yet maintaining their standby capacity in underserved areas could be a policy goal. Passing through their capital costs would help ensure their financial viability and would not cost payers very much because small rural hospitals tend not to be very costly. Inner-city hospitals also could be in precarious financial condition without the resources to fund depreciation and build up a pool to replace needed capital facilities and equipment. Special assistance to these hospitals through an exceptions policy may also be warranted.

2.7.5 Data Requirements

If the state decides to reimburse capital costs differently from operating costs, it will have to have a hospital cost reporting system that distinguishes capital from other costs in an accurate, uniform manner. Medicare cost reports are designed for this purpose and could be used in lieu of state reports. If building, fixed, and moveable capital are to be treated differently, then capital costs need to be allocated among the three categories. Were the state to "grandfather" any existing capital, then a separate capital acquisition list would be required of each facility showing purchase price and date of purchase. All hospitals will maintain such a list as part of their standard accounting requirements.

Establishing a capital facility allowance further requires that depreciation allowances be separated from initial purchase prices and interest expenses; otherwise the system may be paying for unjustified costs of

borrowing. If a target occupancy rate were applied, either as part of a facility allowance or as a penalty for underutilized capacity, the state would need data on each facility's patient days and bed days available.

Areawide constraints on allowable capital costs would require building and equipment price indices at the city or county level. These indices are available from private vendors such as Marshall and Swift, Inc.

Identifying essential hospitals that might qualify for further financial protection would require additional information on patient travel times between institutions. Vulnerable inner-city hospitals could be identified either by public ownership or the extent of bad debts and charity care reported on their annual financial statements.

2.7.6 Updating Capital Payments for Inflation

Like operating costs, capital costs rise over time. The increase in capital costs is due to inflation in lease and rental rates and in building and equipment replacement prices. A capital update factor often has three components: capital market basket weights; price proxies for each component of capital costs; and a new technology allowance. The following capital market basket weights (as shares of total hospital costs) have been derived by HCFA for capital payment under PPS:

(1) Depreciation on fixed assets (3.07 percent).

(2) Depreciation on moveable equipment (1.09 percent).

(3) Interest expense (2.42 percent).

(4) Other capital costs (0.74 percent).

The corresponding price proxies used by HCFA are:

(1a) 40-quarter moving average of the percentage change in the *Engineering News-Record* Building Cost Index.

(2a) 20-quarter moving average of the percentage change in the Producer Price Index for Standard Industrial Classification #11 (machinery and equipment).

(3a) Weighted average of two interest rates averaged over 28 quarters, one for municipal bonds, the other for triple A rated corporate bonds.

(4a) CPI-U for residential rents (as a proxy for other capital cost inflation).

The long moving averages in the price proxies are intended to reflect the long depreciation and financing horizons for capital. Multiplying the percent change in the price proxies by their corresponding market basket weight determines the allowable increase in capital amounts.

The use of building and equipment cost indices to update depreciation allowances is similar to the replacement cost method of accounting for capital. Under either method, hospitals could generate adequate funds to replace their obsolete capital at current prices unless low volumes or penalties detracted from their capital funds.

It is likely that the national market basket capital shares (as well as the price proxies) would need to be modified to reflect the mix of capital costs in a given state. Also, some consideration should be given to regional or state-specific measures of the inflation in capital costs.

Finally, the capital update factor may contain an additional add-on for technological change of 0.5-1.0 percentage points above inflation.

2.7.7 Transition to Prospective Capital Reimbursement

Payment for capital is complicated by the fact that, unlike other costs, capital costs are fixed in the short run and in a baseline period are apt to vary among institutions much more than operating costs because of the capital cycle. As a result, any payment change must treat the existing stock of capital goods differently from newly purchased capital stock. Three transition alternatives should be considered: (1) Blend prospective amounts with hospital-specific costs, (2) "grandfather" existing capital, or (3) pay more for exceptionally high-cost outliers.

Alternatives (1) and (2) have been discussed above (Sections 2.7.3., 2.7.4., and 2.7.5.). An outlier policy could reimburse hospitals for all or part of their capital costs in excess of some threshold amount. For example, hospitals could be reimbursed for 80 percent of their capital costs that exceeded 200 percent of the prospective payment amount. The outlier payment system could be gradually phased out by raising the threshold and lowering the percentage reimbursement, to eventually result in fully prospective payment.

It may be desirable to build some flexibility into capital payment through an explicit exemptions/exceptions policy during transition. Immediate transition to prospective per-case capital payment based on average hospital capital costs could cause severe hardship for the hospital that just built a new building and thus has high capital costs. This hospital could be allowed to apply for an exception to the average cost payment policy over some specified period.

2.8 REIMBURSING FOR BAD DEBT AND CHARITY CARE

Once a rate setting system has approved a hospital's budget, the system must cover the costs of all patients or the hospital will have financial difficulties. A particular problem is how to pay hospitals for patients without hospital insurance.

States have a number of options for solving this problem.

- One or more groups of patients can cross-subsidize bad debt and charity care through higher charges. These subsidies are often considered inequitable to some degree.

- The state can expand Medicaid. This approach has the advantage of building on an existing program, but raises state budgets and consequently direct tax burdens. In addition, Medicaid programs often have a stigma of poorer quality of care and a lack of choice of physician, because doctors may choose not to participate in the program. Finally, not all uninsured people are Medicaid eligible.

- Legislatures can mandate insurance coverage for all private employees. This method avoids additional tax burdens, but fails to provide hospital payments for families with no employed family member. It also raises labor costs for small businesses disproportionately, since annual health insurance premiums generally represent a higher proportion of salaries in smaller firms.

- States can mandate coverage for all individuals and subsidize premiums for low-income people. This approach spreads the financial burden to both employers and taxpayers.

- States can maintain tax-subsidized public hospitals for people without insurance coverage. This approach could seriously limit the states' ability to pay for other public services.

- States can tax all hospital care, pool the amounts, and redistribute the funds as need to pay for care to patients without insurance.

To finance hospital services provided as charity care or bad debt through a rate setting system, third-party payers must implicitly pay for more than the costs of services to their own covered populations. If additional payments are mandated for specific facilities that disproportionately serve poor, uninsured, or underinsured people, these hospital-specific payments are likely to make facilities less price competitive to third-party payers who will try to divert their patients to other, lower-priced hospitals. The resulting decline in private patients in hospitals serving the uninsured will exacerbate the problem of funding charity care for the state as a whole.

Some states have addressed this problem by establishing bad debt and charity care pools that spread the burden of paying for the care across everyone who uses a hospital and redirect the monies toward the hospitals providing the care. Payments are generally made to hospitals on the basis of the costs (not charges) for care that is classified as bad debt and/or charity care, and is not covered by special-purpose funds collected by the hospital to pay for charity care. However, statewide charity care pools are not designed to cover the full costs of this care, and the hospitals still must have rates set above average costs if they are to break even over time.

Forcing payers to cover the costs of the uninsured has resulted in lawsuits against states under the ERISA act. This law allows private employers to self-insure and negotiate payment rates with providers without having to comply with state-mandated payment rules. Any state all-payer rate-setting system would have to address the problem of ERISA in order to achieve its major goals of efficiency and equity. The most desirable outcome would be for the rate setting system to be so successful that employers find it advantageous to participate, as in Maryland.

2.9 PAYMENT FOR GRADUATE MEDICAL EDUCATION

States contemplating a rate setting system will need to consider the cost associated with graduate medical education (GME):

- Will GME be included in the payment system?
- Will GME be paid prospectively or retrospectively?
- How will GME costs be measured?
- Will teaching hospitals be treated differently?
- What criteria will be used to permit teaching physicians to bill for resident-provided services?
- How can GME policies be designed to best meet program objectives?

The costs of GME are typically paid for by payers in an indirect manner because GME costs are imbedded in the charges or operating costs of the facility. Medicare supports GME through direct medical education (DME) and indirect medical education (IME) payments. (See Figure 2-6) In 1991, these payments amounted to approximately $1.5 billion for DME and $3.5 billion for IME (PPRC, 1993). The basic premise underlying Medicare's payment mechanisms is that teaching hospitals provide an "essential service" in maintaining an adequate supply of health care personnel. The same rationale should apply to the states.

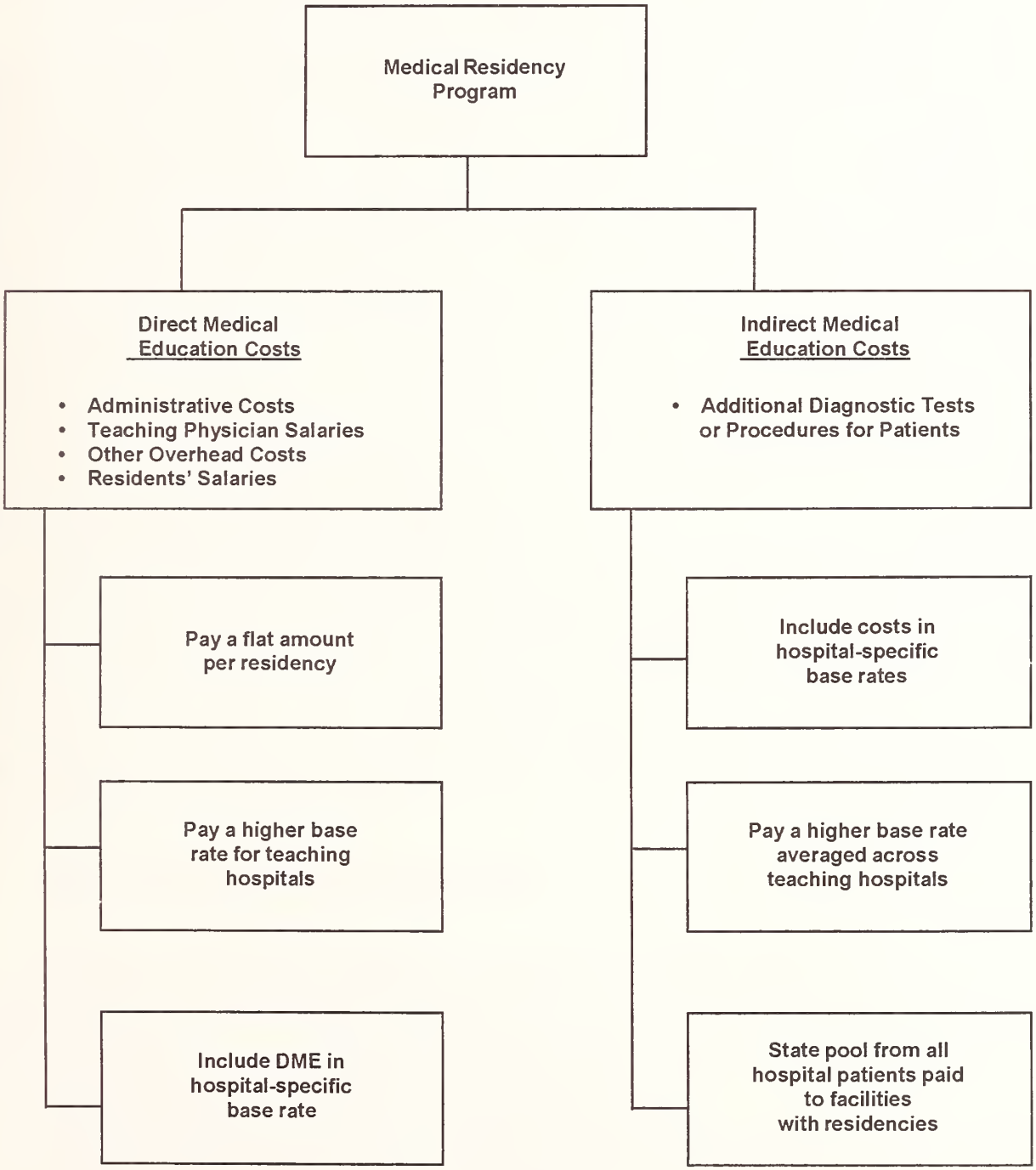
2.9.1 Direct Medical Education (DME)

After PPS was implemented in 1983, GME costs were excluded from hospital operating costs used to create standardized prospective payment amounts. The concern over adverse impacts of PPS on the financial viability of teaching hospitals led HCFA to calculate a separate prospective Direct Medical Education payment (DME). DME is calculated as the product of a hospital-specific per-resident amount and the number of (specialty-weighted) FTE residents. This per-resident amount, established for the hospital's base year and updated by the urban CPI over time, includes the salaries and benefits of residents, salaries of teaching physicians for supervising residents and administering the teaching program, and other teaching program-related overhead costs. Residents are weighted according to where they are assigned, whether they are in their initial residency period, and their foreign medical graduate status.

A state could explicitly support DME by establishing a hospital-specific prospective DME amount per resident, using hospital-specific base-year costs, like Medicare's. Alternatively, the state could set the per-resident amount by type of teaching hospital (i.e., peer group), perhaps using the average of the group or of some reference hospital(s). The latter approach would require at least five teaching hospitals in each group to derive meaningful

FIGURE 2-6

HOSPITALS' COST FOR GRADUATE MEDICAL EDUCATION


Medical Residency Program
Direct Medical Education Costs
• Administrative Costs
• Teaching Physician Salaries
• Other Overhead Costs
• Residents' Salaries
Indirect Medical Education Costs
• Additional Diagnostic Tests or Procedures for Patients
Pay a flat amount per residency
Pay a higher base rate for teaching hospitals
Include DME in hospital-specific base rate
Include costs in hospital-specific base rates
Pay a higher base rate averaged across teaching hospitals
State pool from all hospital patients paid to facilities with residencies

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averages. The advantage of peer group rates is that they encourage hospitals to control their direct teaching costs. The primary drawback is the wide differences in teaching residencies across facilities, suggesting that a unique per-resident amount would be more equitable.

A state must decide whether or not it will recognize cost differences in teaching hospitals and programs. Medicare allowed for hospital-specific variation when it established unique base-year per-resident amounts. However, in a dynamic sense all teaching hospitals are treated identically, since the update factor is the same.

State policy makers must consider the criteria for permitting teaching physicians to bill for resident-provided services, if at all, since a global per-resident payment already incorporates payment for teaching physicians along with the resident salaries. Teaching physicians are reimbursed through Medicare Part A via DME payments which are paid to hospitals but are subsequently transferred in whole or part to the medical school or physician practice plan to pay physician salaries. DME payments therefore are designed to cover the physician's time spent teaching residents and administering the education program. Complicating the situation is the fact that physicians are also allowed to bill Medicare fee-for-service for Part B services they provide directly as well as those a resident provides under the aegis of an "attending physician" relationship. The attending physician relationship exists if the physician provides personal and identifiable services and a medical relationship between the physician and patient is documented in the medical record. The physician can therefore bill for services provided by a resident if the physician supervises the resident and the services are provided under the attending physician relationship. Payers could find themselves paying twice for the services of teaching physicians: once in the hospital rate system, and a second time under a physician rate system.

Determining the per-resident amount, it should be noted, represents an important policy lever for states. Certain costs could be disallowed in setting the allowable payment. In addition, the state can alter the criteria for FTE resident weighting to be consistent with policy objectives. For example, it could seek to increase the number of primary care physicians in rural or inner city hospitals and inner city areas by raising the weight for rural hospitals with primary care residents. More directly, the state could pay only a percentage of the full per-resident amount according to whether the hospital fulfills requirements for specialty mix between specialists and primary care physicians (as done in Washington State).

2.9.2 Indirect Medical Education (IME)

Hospitals that operate graduate medical education programs incur average costs per case significantly above the averages for other types of hospitals, even if one ignores their direct medical education costs. Some of these costs are due indirectly to their teaching mission. The style of medical practice in teaching hospitals is more aggressive, extra tests are performed, operations and lengths of stay are longer, etc.

Whether current patients should pay for the extra services residents provide as part of their on-the-job training is debatable. All future patients benefit as well. On the other hand, there are five major reasons for

including indirect medical education costs in patients' rates. They are:

(1) **Extra services benefit patients.** Patients benefit to some unknown extent from the extra services, because their doctors learn more about their conditions. It is difficult to separate specific services into those that benefit only the medical student or resident and those that also benefit the patient. Therefore, it is reasonable for the patient to pay for all of them.

(2) **Teaching hospitals have higher quality.** Teaching facilities attract patients by offering a higher quality of care, particularly diagnostic services and the newest technology. Much of the additional cost that is identified as the cost of indirect medical education may actually be associated with this higher quality of care and therefore is a justified cost of patient care. If patients or their insurers do not want to pay for this perceived higher quality of care, they can seek treatment at non-teaching hospitals.

(3) **Severity adjustments are inadequate.** Teaching facilities attract more severely ill patients than do community hospitals because of the diagnostic abilities of the staff, their newer technologies, and the more aggressive practice of medicine in teaching facilities. Present case-mix measures do not measure this severity, therefore it is paid for indiscriminately in the indirect medical education adjustment. If patients did not pay for these costs, the facility would be inadequately reimbursed for its more severe cases and might close or curtail its services. These actions could reduce the hospital care system's ability to handle severe cases beyond a level that most people would find acceptable.

(4) **Residents pay for themselves.** To the extent that medical residents impose costs on the system through their training and their lower productivity in treating patients, they pay for themselves by supplying physician services for an average wage that is below market levels for their services. If patients in teaching hospitals had to pay the senior faculty to supply all of their physician care, the cost would be far greater than it currently is.

(5) **State hospital industries are big business.** If only one state were to reduce its payments for indirect medical education, it might lose some part of its medical education industry and associated revenues. In addition, patients seeking the type of treatment that educational facilities offer might go out of state for care, in which case the hospital industry would shrink.

The costs of indirect medical education are currently covered in three ways: (1) implicitly in discounted charges; (2) implicitly in the rates paid under rate setting systems that group teaching hospitals separately from other hospitals in determining the rates; and (3) explicitly in the formulas used by Medicare and some state rate setting programs. These formulas result in teaching hospitals receiving a multiplicative add-on to their rates based on the ratio of the number of interns or residents they have working in inpatient assignments to the number of beds they have. The use of a continuous add-on for the indirect costs of medical education has the disadvantage that it encourages specialization and does not allow for differences in costs due to differences in the types of residencies that hospitals may have. Different residencies require different types of tests and procedures, incurring different costs for the hospital. Currently, formulated approaches treat all residents alike.

An alternative method of payment being considered by some policymakers is the use of a state pool for indirect medical education costs. The funds for the pool could be raised by a uniform add-on to all hospital bills

throughout a state. The distribution of the pool could relate directly to the number and types of residencies in each hospital, based in part on policy goals regarding the share of primary care residents.

2.10 SCOPE OF THE PROSPECTIVE SYSTEM AND PROVIDER EXCLUSIONS

Not all types of rate setting systems are applicable to all hospitals or hospital subunits (Carter, *et al.*, 1994). For example, tertiary neonatal units and children's hospitals are excluded from most state systems because of fundamental differences in the nature of inpatient care provided there compared to general acute care facilities. Similarly, the lack of an accepted patient classification system for rehabilitation cases makes rehabilitation a poor candidate for rates set on a per-case basis using DRGs.

Depending on the type of rate setting system policy makers choose for acute care facilities, they must decide which hospitals and units, or subproviders, to include in the system. Payment systems that rely on bundled per-case or per-diem payments often exclude certain facilities and units for which it is difficult to adjust for case-mix severity. Some facilities frequently excluded for this reason are psychiatric facilities and units, rehabilitation facilities, children's hospitals and long-term care facilities.

In addition, cancer units, pain treatment centers, substance abuse clinics, and out-of-state facilities are generally excluded from state rate setting systems for general hospitals, although Medicare now includes substance treatment facilities in prospective payment. Possible approaches to paying excluded providers include discounted charges (for commercial payers) or reasonable costs. However, if providers are excluded from the state's payment system, they are typically excluded from the data base used to calculate base rates and relative value scales.

Because not all case-mix adjustments are adequate for all types of admissions, states may implement a mixed system with per-case or per-admission rates for some diagnoses and per-diem or per-service rates for others. Candidates for separate treatment include diagnoses for which the number of cases is small or for which (per-service or per-diem) the classification schemes are not sufficiently refined. Psychiatric and substance abuse treatment on the general acute care wards of general hospitals are examples of the latter.

2.11 RATE SETTING IN RELATION TO MANAGED CARE

Managed care plans are now active in almost every state, and the design of a rate setting system should include careful consideration of how the system will affect these plans. HMOs that own their hospitals and admit only their own enrollees can achieve lower inpatient expenditures per enrollee than other insurers because they often provide inpatient care more efficiently, negotiate favorable discounts from hospitals, and tend to enroll a younger, healthier population than other insurers. To the extent that HMOs provide more efficient care at lower costs, the rate setting methodology may set a payer differential for them or even exempt them entirely.

There are at least three ways that a state rate setting system can recognize managed care organizations' lower costs per admission, achieved by managing patients' utilization of health care services:

1. Through lower standardized amounts that set payments for managed care organizations below those for commercial insurers.

2. By choosing an unbundled unit of payment so that all private payers will pay the same hospital rates but payers that manage patients' care more effectively will achieve lower overall hospital costs per admission.

3. By letting managed care organizations negotiate their own rates directly with hospitals.

Each of these approaches has advantages and disadvantages. Setting lower conversion factors allows the state to use a bundled payment rate which places the hospitals at risk for controlling inpatient utilization but rewards plans that reduce costs per case through rigorous case management. However, using rate differentials may require the state to keep data files with which it can verify the differences in costs per admission and determine the appropriate amount of difference in rates.

Setting rates for unbundled services gives managed care organizations greater flexibility over their payments. However, unbundled rates often do not place hospitals at risk for inpatient utilization and, in the absence of monitoring by insurers, additional rate setting strictures (for example, DRG cost inflation caps) may be needed to encourage cost containment.

Direct rate negotiations between managed care organizations and hospitals give insurers and providers the greatest flexibility but could allow hospitals to shift costs to other payers and avoid cost containment incentives. To protect other payers from cost shifting, the rate setting agency would need to set efficient, fixed, payment rates for non-HMO patients.

Rate setting states have employed all three of these approaches, sometimes mixing them, and the degree to which managed care organizations have thrived has depended, in part, on their market power. A hospital's willingness to negotiate separate, lower, rates with any insurer depends largely on how many empty beds it has. Managed care organizations have been especially active in states with excess bed capacity

In the absence of separately negotiated HMO rates, rate setters can still discount HMO payment rates and encourage their growth. Managed care organizations, of course, must justify their lower costs to rate setters in order to receive the lower rates. A regulated charge system may achieve the same end without the expense of reviewing payers' costs. With service-specific units of service, managed care organizations save directly by lowering the intensity of care delivered to each patient.

3.0 PHYSICIAN RATE SETTING

3.1 INTRODUCTION

Any rate setting system must eventually address physician services as well as hospital care. Less and less of medical care is being provided to inpatients while more and more is being provided in ambulatory surgery centers, clinics, and offices managed by physicians. Controlling rates for one sector, however important, establishes incentives to shift care to uncontrolled sectors. Technological change has facilitated such shifts, and ways must be found to gain control over both hospital and physician services.

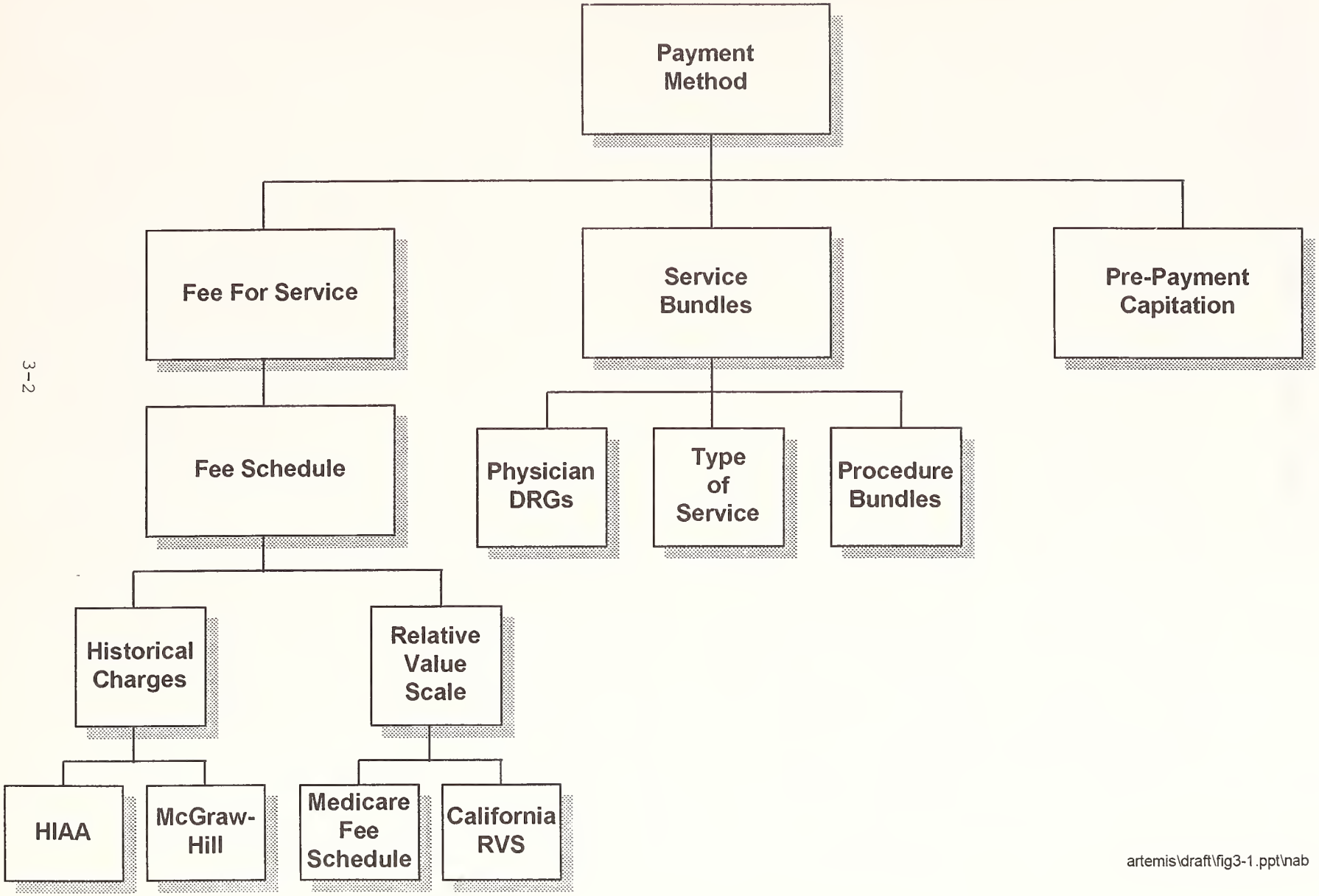
In this chapter, we begin by reviewing the principal alternative methods for paying physicians, including the historically popular method of paying discounted charges, capitation payment arrangements, and fee schedules based on relative value scales (Figure 3-1). We then focus on the Medicare Fee Schedule (MFS) because of its rapid adoption (and strong probability for wider adoption) among other public and private payers, and the potential for a resource-based system to affect the allocation of resources for physicians' services. Section 3.2 provides a brief overview of the development and diffusion of resource-based relative value fee schedules across states, private payers, and the Federal government. Section 3.3 describes the advantages of a resource-based fee schedule over traditional discounted-charge methods. Section 3.4 describes the major new regulatory approach using fee schedules based on the Resource-Based Relative Value Scale (RBRVS) developed for Medicare. This section first summarizes the original RBRVS method developed by Harvard and the AMA and then outlines the methodological changes made by HCFA to adapt it for Medicare payment.

If states choose to use the Medicare Fee Schedule (MFS) as a model for developing their own RBRVS-based fee schedules, it is important to fully understand how Medicare coverage and payment policies affect the Relative Value Units (RVUs) assigned to individual services. Payment policies that accompany an RBRVS fee schedule can have at least as large an impact on provider behavior and reimbursement as the relative value units have. A state must carefully analyze the policy issues and adopt those specific policies that will facilitate achievement of its primary goals.

Using the Medicare program as a point of reference, subsequent sections of this chapter provide detailed discussions of important policy and technical decisions that states must resolve during their policy development process. Section 3.5 summaries the key policy and technical decisions payers will have to make in adapting a natural resource-based fee schedule to their state. Section 3.6 covers technical issues surrounding the procedure-based unit of payment, such as possible bundling of related services for global payment. Sections 3.7 and 3.8 review the scope of provider and service coverage. Section 3.9 highlights the many different adjustments to conversion factors and fees that states might wish to consider for equity, efficiency, and access reasons. Finally, the last three sections concern issues of system implementation, updating fees, and other on-going modifications in payment policies.

FIGURE 3-1

PHYSICIAN PAYMENT METHODS



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3.2 ALTERNATIVE METHODS OF REIMBURSING PHYSICIANS

Physicians have traditionally been reimbursed for their services using discounted charges on usual, customary, and reasonable (UCR) rates. For each service that physicians provide, such as an office visit or a particular surgical procedure, the insurer establishes a profile of submitted charges from which is determined the usual charge. These profiles are aggregated across providers in a local area and an areawide customary rate determined at, say, the 75 percentile. When a physician submits a bill, the insurer pays the lowest of the actual charge on the bill, the physician's own usual charge, or the local customary rate.

In this approach, the service unit is the individual service or procedure. (Thousands of individual procedures and services make up the units for which payments are made under UCR-like systems.) This is a great strength in that payment is tailored to the services actually provided individual patients: sicker patients demand more services, thus physicians provide more services and receive more payments. Unfortunately, such a fragmented system has an inherent weakness and that is the incentive to overprovide services: physicians get paid more when they do more, regardless of the necessity of the services. Moreover, unequal insurance coverage for surgical and other services has distorted payments since surgical services have historically been more fully covered than medical services. Finally, because payment screens are based on past charges, providers have had incentives to artificially raise charges, and this has been highly inflationary.

There are three alternatives to the UCR approach to reimbursing physicians (Figure 3-1). At the broadest or most inclusive level is **capitation**. Physicians are paid a global payment per month for each plan member. They may be responsible for providing just physician services, or their monthly payment may include an amount to cover institutional care as well. Capitation is the foundation of managed care, giving physicians direct financial incentives to negotiate lower prices with other providers and to control unnecessary utilization.

One step removed from full capitation is **global bundled payments** to hospitals and physicians for particular services. This is similar to traditional fee-for-service arrangements except that here the payment is made for a *bundle* of services rather than individual service units. A hospital's medical staff, or specialty group, could be paid a fixed amount for providing the inpatient physician care for any patient requiring, say, open heart surgery or treatment for pneumonia. Going a step further, a single payment could be made to a joint hospital-physician entity for the complete hospitalization, to be divided up as providers wish. These bundles could extend beyond the hospitalization to include preadmission care and follow-up physician care. They could also be developed for outpatient hospital, nursing home, home health, and other services. They differ from capitation in that the payment units are specific episodes of services or specific conditions, not individual enrollees.

The third alternative is **fee-for-service payment** based on fee schedules whereby each identifiable service is assigned a fee level. The traditional UCR approach described earlier is one example of fee-for-service payment. Fee-for-service fee schedules can be based on historical charges with a schedule of customary fees established

according to submitted charges, or they can be based on a relative value scale. Using relative physician charges may be an appropriate way of creating a relative value scale if physician time is a significant predictor of physician effort associated with providing different services and procedures (Cromwell *et al.*, 1989). Another general approach to establishing a relative value scale and subsequent fee schedule is to base the relative value of services upon resource costs. This approach, which is being adopted in several states, is the subject of the remainder of this chapter.

3.3 DEVELOPMENT AND DIFFUSION OF RESOURCE-BASED RELATIVE VALUE SCALES

3.3.1 Development

An early attempt to establish a resource-based relative value scale was made by the California Medical Association in the 1950s and resulted in the California Relative Value Scale (CRVS). The CRVS considered time, effort, and complexity to create unit values for procedures. The CRVS consisted of five independent sections--medicine, surgery, anesthesia, radiology, and laboratory services. The unit values within each section were derived independently of those in other sections. In other words, none of these five sections was cross-linked or scaled to any other section. Relative values for a given section, therefore, cannot be compared to those in any other section.

Many payers adopted the CRVS due to its easy application. However, the last update of the CRVS was in 1974 because the Justice Department ruled that physicians were engaged in price fixing, via the California Medical Association, and this ruling effectively prohibited future centralized CRVS updates. Since then, payers have begun developing their own updated versions of the CRVS, leading to ever greater fee variation across payers over time.

More recently, the Health Care Financing Administration (HCFA) has developed a partially resource-based relative value scale to be used to establish fees for physicians' services under the Medicare Fee Schedule (MFS). This approach resembles the current UCR system, in that it pays for each service separately in a fee-for-service environment. The principal difference is in the method used to determine payment levels for each service. Instead of being based on historical physician billing profiles, payments are partially tied to the "value" of the resources used in providing each service. The Medicare Fee Schedule was designed to correct for payment distortions engendered by historical charge-based fees and insurance coverage.

3.3.2 Diffusion to States and Private Managed Care

Although no state at this time has implemented a truly all-payer system for paying physicians, resource-based systems for all *public* payers are beginning to emerge at the state level (McCormack *et al.*, 1993; PPRC 1994). Furthermore, many public and private payers are rapidly adopting the RBRVS system employed in the Medicare Fee Schedule (MFS). A survey of a broad spectrum of payers found that one-third of them had adopted

MRBRVS in some way by the end of 1993, including 15 Medicaid programs (McCormack *et al.*, 1993). In general, most public payers adopting resource-based relative value scales have structured their payment systems based upon the Medicare model.

The experience of other payers using the MFS model has shown how flexible and versatile it can be. For example, payers are applying the MFS to various insurance products, especially managed care products. McCormack *et al.* (1993) found that three-fourths of all product lines using the MFS were managed care, including HMOs, PPOs (preferred provider organizations) and point-of-service delivery systems. Although the MFS was designed for fee-for-service payment, it has valuable applications for managed care organizations. For instance, the Arizona Medicaid program, which is primarily a managed care system, applies the MFS as an interim measure, to services provided to beneficiaries not yet enrolled in a managed care plan. Other managed care organizations are using the MFS as an internal management tool, constructing physician profiles of service provision to better monitor utilization. Still other payers have adopted the MFS for strategic reasons such as limiting cost shifting from other payers or for use as a benchmark in negotiations with providers. PPOs might use the MFS to pay out-of-plan providers.

3.4 ADVANTAGES OF USING THE MEDICARE RESOURCE-BASED FEE SCHEDULE

Medicare's Resource-Based Relative Value Scale may be appealing to states considering reforming physician payment systems for several reasons. First, the work component of the relative value scale, which accounts for 54 percent of total Medicare physician payments, is resource-based since it is based on estimates provided by expert physician panels and surveyed physicians. (The remaining 46 percent, however, is allocated to practice and malpractice expenses.) Second, the scale also gives payers a single lever, called the conversion factor (CF), that they can use to control allowable price increases. Medicare now uses three CFs: one for surgical services, one for primary care services, and one for non-surgical, non-primary care medical services. The conversion factor is analogous to the standardized amount that converts DRG relative weights into dollar payments in hospital rate setting.

Third, unlike the California or other Relative Value Scale (RVS) alternatives, the Medicare Fee Schedule (MFS) is not divided into independent sections. Relative values for nearly all medical and surgical services are included in a single relative value scale. (Under Medicare, anesthesia services are partially integrated but continue to have fees based on time units. Laboratory services not included under the MFS are paid under a combination of carrier prices and the Medicare Clinical Diagnostic Laboratory Fee Schedule.) Other RVS systems may use different sections to create multiple within-section relative value scales, but they do not integrate all services into a single, inclusive underlying relative value scale. Fourth, by bringing fees more in line with costs, a resource-based system should encourage more evaluation and management services and fewer surgical or diagnostic procedures. Fifth, cost savings or reductions in expenditure growth could be achieved by rescaling fees according to the MFS.

Historical fee distortions should be reduced over time as physicians respond to incentives under MRBRVS to provide fewer costly invasive procedures and more cost-effective evaluation and management services. Sixth, the RBRVS developed by HCFA and will be centrally maintained and updated over time. State administrative burden is thereby reduced. Finally, the experiences of other states and payers serve as natural case studies for those states contemplating reform of physician payment. Medicare also provides a natural starting point for evaluating a payment system with fees based on the Medicare RBRVS. States can evaluate the impact of the Medicare RBRVS first before altering their own system.

3.5 MEDICARE'S RESOURCE-BASED RELATIVE VALUE SCALE AND THE MEDICARE FEE SCHEDULE

Several years ago a model for a Medicare resource-based relative value scale (RBRVS) was developed for HCFA by researchers at Harvard University. The model contained three resource inputs, or relative value units (RVUs), for the provision of physician services: (1) total physician work, (2) an index of relative practice costs by specialty, and (3) an index of amortized value for the opportunity costs of specialty training (Hsiao *et al.*, 1988, 1992). The Harvard RBRVS combined these components using a multiplicative equation:

$$\text{RBRVS} = (\text{total work}) \times (1 + \text{relative practice costs}) \times (1 + \text{specialty training}) \qquad (1)$$

The total work involved in a procedure is factored up by the practice costs associated with the procedure with (possible) adjustments for the greater costs of specialty training. Total work was further decomposed into three components: pre-service, intra-service and post-service. The intra-service work value was viewed as having four dimensions: time, physical effort and skill, mental effort and judgment, and stress from iatrogenic risk. Estimates of intra-service work were developed by asking groups of physicians to provide the estimates, using psychometric techniques. Vignettes for roughly 25 services per specialty were developed to represent the average service for a particular CPT procedure code. Practice costs were defined as the costs of medical practice exclusive of the physicians' own time and effort; they include expenses associated with equipment, rent, and salaries for ancillary personnel. Within each specialty, practice costs expenses were allocated to each service in proportion to the total work value of the service, creating a specialty differential. Services requiring greater work from the physician receive greater reimbursement for practice expenses.

The final component, namely, opportunity cost of specialty training, was included in the model to compensate physicians for the years of specialty training. The opportunity cost of specialty training was estimated by subtracting the salary of a resident from the salary of a practicing physician of similar age, summed across the duration of the residency program and amortizing this total amount over the working life of the physician.

3.5.1 The Medicare Fee Schedule Formula

The Medicare Fee Schedule (MFS) is a physician payment system that is based in part on the Harvard RBRVS model, though important differences do exist. For example, the work and practice cost components were converted into Relative Value Units (RVUs) first, before a component-specific Geographic Practice Cost Index (GPCI) was applied. Physician service fees under the MFS are calculated from the following additive equation:

$$FEE = CF \times [(RVUWK \times GPCIWK) + (RVUPE \times GPCIPE) + (RVUMP \times GPCIMP)] \quad (2)$$

where RVUWK, RVUPE, and RVUMP = the relative value units associated with physician work effort, practice expenses, and malpractice costs, respectively; GPCIWK, GPCIPE, and GPCIMP = the geographic practice cost index fees associated with work, practice expenses, and malpractice costs and is a area-specific; and CF = the national conversion factor to convert the GPCI-weighted RVUs into dollars. The MFS currently employs three conversion factors: a surgical service CF of $39.447; a non-surgical (and non-primary care and non-anesthesia) CF of $34.616; and a primary care services CF of $36.382. RVUs vary by procedure while each GPCI term varies only by Medicare payment locality (but not by procedure code). There are over 200 pricing localities based mainly on administrative units created by HCFA to administer the Medicare program. The GPCIs were developed by researchers at the Urban Institute and the Center for Health Economics Research (Pope *et al.*, 1994; Pope and Dayhoff, 1994; Zuckerman and Norton, 1994).

The RBRVS underpinnings of the MFS depart from the original Harvard RBRVS methodology in several important respects. First, under the Harvard methodology, the three RVU components were entered into the fee schedule formula in a multiplicative fashion in equation (1), while the current methodology applies RVUs in an additive manner as shown in equation (2). As mandated by statute, Medicare fees do not vary by provider specialty and, hence, exclude the opportunity cost of specialty training. Also, malpractice expenses were retained as a separate RVU component, while the Harvard methodology simply counted them as practice expenses. Finally, the MFS uses only the work RVU component from the RBRVS developed for HCFA; therefore the sum of RVU components in equation (2) is almost never the same as the RBRVS product in equation (1).

3.5.2 Deriving the Practice Expense and Malpractice RVUs

It is important to note that payments for physician work comprise only about 54 percent of total MFS payments. The remainder are allocated to practice expense (41 percent) and malpractice costs (5 percent), both of which are still based on historical charges. Thus, the MFS goes only halfway toward the goal of a fully resource-based fee schedule.

HCFA calculated the physician's overall practice and malpractice expense RVU components by multiplying the average share of these costs in physician revenues by the average historical charge for a service

(*Federal Register,* November 25, 1991). The practice expense share is based on a weighted specialty average using service counts as weights. Practice expenses are measured as the sum of all expenses for ancillary personnel, equipment, supplies, rent or mortgage, and any other practice expenses besides physician compensation or malpractice premiums. The practice expenses component was estimated using practice expense data from a national survey of physician practices. A similar approach was used to derive malpractice expense RVUs.

The major criticism of the practice and malpractice expense RVU components is that they are not resource-based as is the work RVU; thus the RBRVS is only partially resource-based. Hence, fees capture inefficiencies engendered by the charge-based system the MFS intended to replace. Specifically, inefficiency enters the practice and malpractice RVUs through use of historical allowed charges taken from the 1989 Part B Medicare Annual Data (BMAD) file. In addition, the American Medical Association's 1989 Socioeconomic Monitoring System survey, which was used to calculate the practice and malpractice expense components of the MFS by specialty, randomly selects respondents without regard to whether the physician's practice is efficient or not. As a result, the practice and malpractice expense measures are an average of both efficient and inefficient practices. Finally, the MFS still contains incentives that favor invasive services over evaluation and management services due to the way practice costs are included. Surgical procedures, for example, have the same percentage add-on for rent as do office visits (Latimer and Becker, 1992). States considering adopting the MFS should consider whether distortions will result from the practice and malpractice expense components and whether the practice characteristics of providers in the state are similar to the national averages.

3.5.3 Updating Rates

The MFS was mandated by OBRA-89 (Omnibus Budget Reconciliation Act, 1989) to be budget neutral with respect to the Medicare customary, prevailing, and reasonable (CPR) system in 1991 and to be phased in over a period of four years. Stipulations limit the range of fee increases or decreases from one year to the next in order to maintain budget neutrality throughout the transition. The determination of the original conversion factor was complicated not only by the transition accounting, but also by uncertainties about changes in volume and intensity of physician services in response to the implementation of the MFS.

Another provision of OBRA-89 was the creation of Medicare volume performance standards (MVPS) to update the conversion factor. The volume standards were designed to control the growth in physician service spending by limiting the annual growth in the conversion factor. The conversion factor update is based upon changes in the Medicare economic index (MEI), which serves as a proxy for national inflation in physicians' practice costs and earnings, and the relationship is adjusted upwards or downwards depending on whether actual increases in Medicare Part B physician spending are below or above the allowable volume standards.

3.6 A SUMMARY OF POLICY AND TECHNICAL DECISIONS

The significant elements required to develop a physician payment system based on the MFS include: (1) a relative value scale of physician services, such as the Medicare RBRVS; (2) a set of payment policies and billing guidelines to accompany the fee schedule; (3) historical physician claims data from payers in the state; (4) a methodology to update the system and monitor its performance; and (5) an appeals process. If a state is considering developing a payment system based on the Medicare RBRVS, a thorough analysis should be undertaken to assess the applicability of the MRBRVS to the state's provider, procedure, and patient mixes. A resource-based relative value scale can form the structure of a payer's fee schedule, but the scale, itself is not a payment *system*. Rather, it is a scale that measures the relative resource requirements among different physician services. It does not contain any cost containment mechanism or update provisions. Nor does the MFS apply to all services provided by physicians and other providers that are reimbursable by different payers (for example, laboratory services). A state will need to develop payment policies and billing practice protocols to complement the fee schedule based on the MFS as part of a broader, comprehensive payment system.

The major decisions, in hierarchical order, that states must make regarding a physician payment system based on the Medicare Fee Schedule are as follows:

- **Unit of Payment.** Given the decision to use RBRVS, this fundamental policy question has been answered. RBRVS is based on the AMA CPT-4 convention using procedure codes for individual services. In a multi-payer framework, states will find it necessary to standardize the coding convention across payers, including non-CPT service codes. There will be other outstanding issues to address regarding the definition of the unit of payment for some services such as global surgery packages and components of services that are allowed to be billed.

- **Standard Unit Value.** RBRVS is a scale of relative values based on resource costs. A policy decision may be necessary for some services that will not be using RVUs as the unit of value.

- **Costs to be Included in Determining Base-Year Fees.** Fundamental decisions must be made regarding *types of providers and services* to be paid under RBRVS and those that will *not* be paid under RBRVS. Policymakers must establish clear policies about which providers will be paid under RBRVS: Will all physician types or allied health professionals be paid fees based on RBRVS? State policymakers must decide which services are to be included under RBRVS. Specific service types to consider include anesthesia services, radiology services, supplies and services incident to physicians' professional services, chiropractic services, chemotherapy administration, nursing home visits, and electrocardiograms.

- **Fee Differences.** Fees under the new system will differ across services according to their RVUs. Policy decisions can alter fees through the conversion factor, RVU adjustments, and other circumstances. Policymakers must decide whether or not the conversion factor will be used to establish fee differentials per service type, per provider type, or by geographic location. States must decide whether or not RVU adjustments will be made by service, provider, or location to create payment differences. Key policy questions include: (1) Whether conversion factors will differ by type of service, provider specialty or type, or

geographic location; (2) whether geographic adjusters will be used to adjust fees; and (3) whether fees be changed for specific groups of services, providers, or locations according to designed policies.

- **System Implementation.** Policymakers must decide how and when the new system will be implemented. Key issues to be addressed include: (1) required computer system conversions, (2) timing of implementation, and (3) update features that will be included. Other issues include technical matters such as rebundling payment edits.

- **System Administration.** Policymakers must decide upon methods to monitor the performance of the new system and how to conduct ongoing administration. States will need to establish committees to evaluate expenditure and utilization data, calculated update factors for the conversion factor, update RVUs, and update payment policies and billing guidelines. Administration requires states to develop and maintain the capability to perform the various updates and to manage providers' appeals (e.g., rate appeals, update appeals, etc.). (See also Chapter 4, Section 4.8.)

3.7 UNIT OF PAYMENT AND BUNDLING SERVICES

A state that decides to base its physician payments on the MFS simultaneously decides that the unit of payment will be the individual procedure code, since Medicare RBRVS was developed using the American Medical Association's Current Procedural Terminology, Fourth Edition (CPT-4) coding convention. In addition, a decision to use the MFS implies that relative value units will become the standardized unit of value for each service unless a state develops its own RVUs--a challenging task. However, the payment system will probably include services not under MRBRVS; thus states will face the broader issue of what coding convention to use.

The Medicare program uses the HCFA Common Procedure Coding System (HCPCS) which includes three levels: AMA CPT-4 codes (level I), alphanumeric codes (level II), and local codes (level III). Level I codes are simply AMA CPT-4 codes, which are 5-digit numeric codes (e.g., 99213). Level II codes are alphanumeric codes for services or medical equipment that are generally not covered under the MFS, such as dental services (e.g., D0110, initial oral examination) and injection services (e.g., J0330, succinycholine chloride injection). Level III codes are local codes specific to each Medicare carrier. Such codes usually begin with a W or X (e.g., W0001, X0021) and are used for highly unusual or very infrequent services that are not covered under the MFS. HCPCS has been adopted in varying degrees by many payers and is the most likely candidate for forming a standardized coding system. Many state Medicaid programs use it. But Medicaid and many other payers have created additional local codes over the years to address various idiosyncrasies within their programs. (The Medicare program has been actively trying to reduce the number of local codes in use.) A state should make every effort possible to **standardize service codes across payers**. It is likely, though, that some local codes will need to be retained.

A very important policy issue related to defining the unit of payment concerns **global surgery packages.** Bundled or global payments for surgical services are used widely by payers, but definitions vary. Most surgical packages include the surgeon's preoperative evaluation, the surgery itself, and postoperative care. However, payers

may impose different time windows for the preoperative and postoperative period payments. How the state defines its global surgery packages could have important impacts on providers and payments.

The major questions a state should expect to be raised concerning global surgery include:

- Are the pre/post windows appropriate for the state's physicians and payers?
- Are the global surgery modifiers and accompanying payment adjustments appropriate for the state's physicians and payers?

Under the Medicare program, a single fee is paid for all necessary services provided by the surgeon before, during, and after the surgery, within a specified time window. Longer payment windows are established for major surgery than for minor surgery and nonincisional procedures. The preoperative period for major surgery starts on the day before the surgery and includes all visits by the surgeon (except for the visit in which the decision to do surgery was made). The postoperative period ranges from zero to 90 days. For minor surgeries, no visits will be reimbursed on the day of the surgery while a zero to ten-day postoperative period applies. For endoscopies, no payment for visits is allowed on the day of the procedure. The postoperative period covers all services by the surgeon related to the diagnosis. Modifiers are required by Medicare (and other payers) when unusual or extraordinary circumstances arise, such as a return trip to the operating room, or unrelated evaluation and management services. (See Appendix E for further discussion of modifiers).

There are instances when different physicians perform separate components of the surgical package. That is, under rare circumstances, the bundle of preoperative, intra-operative, and postoperative care may be split among physicians. For example, the surgeon who does the preoperative care may become ill or otherwise unavailable and another surgeon performs the intra-operative and/or postoperative services. Another example is an itinerant surgeon in a rural area who performs surgery but not the postoperative care. Under the Medicare global surgery policy, the combined payment of multiple providers will not exceed the global surgery payment amount if performed by a single physician. Medicare and many other payers require that specific modifiers be attached to the physicians' submitted bills when only components of the global surgery package are performed. (See Appendix E for further discussion.)

Another important definitional issue concerns **rebundling** of physician services for an MFS-based payment system. A state must clearly define the components of services that can be billed separately. As indicated above, the MFS uses as its basis the AMA's CPT-4 (Current Procedural Terminology, Fourth Edition) codes. RVUs for the physician work associated with the service were developed, for the most part, using the definitions provided in the CPT manual, and reflect the relative resources that are required to produce a particular service. Thus, work RVUs for a comprehensive surgical procedure such as a complete transurethral resection of the prostate (TURP) would reflect the relative level of both the complexity and the time required to perform the surgery and aftercare. The CPT-4 manual's definition of the services normally performed during a complete TURP procedure also includes related procedures such as a vasectomy and a cystourethroscopy. Under Medicare payment rules,

payment is made for only the comprehensive service. Additional payment is not to be made for any of related procedures if these are performed by the same physician on the same day as the TURP. This à la carte billing practice is commonly referred to as unbundling or fragmentation and violates the spirit of CPT coding conventions and Medicare payment rules.

To reduce unbundling, HCFA undertook a large-scale standardization initiative in 1991 to phase in uniform coding and payment policies. In January 1992, the list of comprehensive services subject to rebundling edits was expanded to 252 services. In January 1993, the list was once again expanded, and the carriers were instructed to apply the rebundling edits to ambulatory surgery center facility charges as well. In each of the phases, an educational program for physicians was undertaken to educate physicians as to the correct coding conventions associated with billing for the comprehensive and associated component services.

Underlying the problem of fragmentation of billing are several important issues that states should consider:

- Not all services are well defined in the AMA CPT-4 or Medicare's RBRVS. For example, the components of prenatal services by obstetricians and the components of monthly capitated payment for dialysis services by nephrologists are the subjects of ongoing discussions between payers and physician groups.
- Historic payment rules may lead physicians to bill for component services in addition to a comprehensive service, such as critical care.
- Important technological changes in medical practice may not be reflected immediately in the CPT-4 service definitions. Once again, ambiguities can lead to confusion over billing.
- Finally, coding mistakes made by billing clerks in physician offices can lead to errors in using the coding system and can result in billing for unbundled services.

3.8 SCOPE OF PROVIDER COVERAGE

The next important set of policy decisions concerns the types of providers and services to be included in the fee schedule. The following types of providers' payments are based, in full or in part, on the MFS:

- **Physicians,** including doctors of medicine and osteopathy, doctors of optometry, doctors of podiatry, doctors of dental surgery and dental medicine, oral and maxillofacial surgeons, and chiropractors.
- **Independently practicing physical and occupational therapists** (when providing non-hospital outpatient physical therapy services only).
- **Suppliers of the technical (noninterpretive) component of any radiology or diagnostic service.**
- **Independent laboratories performing anatomic pathology services.**

- **Physician assistants.** Medicare payment continues to be made on a reasonable charge basis; however, payment amounts may not exceed limits that are tied to the participating physician fee schedule: 75 percent for services provided in a hospital setting, 85 percent for services provided in a non-hospital setting, and 10.4 percent for assistant-at-surgery services. Payment is always made to an employer.

- **Nurse practitioners and clinical nurse specialists.** Medicare payment continues to be made on a reasonable charge basis; however, payment amounts for services provided in rural areas may not exceed limits that are tied to the participating physician fee schedule: 10.4 percent for assistant-at-surgery; 75 percent for services provided in a hospital setting; and 85 percent for services provided in a non-hospital setting. In non-rural areas, nurse practitioners may receive compensation only for services provided in nursing facilities. Medicare payments may not exceed 85 percent of the participating physician fee schedule amount for the respective service.

- **Nurse midwives.** Medicare payment is the lesser of the actual charge or the nurse midwife fee schedule amount, which is set equal to 65 percent of the participating physician fee schedule amount for the same service.

- **Clinical psychologists.** When performing diagnostic testing clinical psychologists are paid under the physician fee schedule. For all other services, they are paid under their own fee schedule, which is based upon the reasonable charge methodology.

- **Clinical social workers.** Medicare payment for all covered services other than psychological testing is set at 75 percent of the clinical psychologists fee schedule amount.

The Medicare Fee Schedule applies to services provided by physicians and limited license practitioners; however, there are restrictions on the types of services for which Medicare will pay these providers. Although the MFS technically does not apply directly to non-physician providers, (nurse practitioners, physician assistants, physical and occupational therapists, etc.), these providers' payments are indirectly based upon the fee schedule rates. (For physical and occupational therapists providing services in non-hospital settings, the MFS does apply.) For purposes of discussion, we will consider these providers' payments to be based upon the Medicare fee schedule.

Anesthetic services were treated separately under the Medicare Fee Schedule. As part of a comprehensive system; states will want to include the following two anesthesia providers as well:

- **Certified Registered Nurse Anesthetists.**

- **Anesthesiologists.**

The reader is referred to Section 3.8.1 for differences in how these providers might be reimbursed.

In general, payment for the provision of physician services in institutional settings (hospitals, nursing facilities) is based upon the fee schedule unless the physician is compensated by the institutional provider. There are two notable instances in which payment for physician services is not based upon the MFS:

1. Occupational and physical therapy services are not reimbursed under the fee schedule when provided in institutions such as hospitals, skilled nursing facilities, comprehensive rehabilitation facilities, and home health agencies (because these facilities are paid to provide or arrange for these services).

2. Direct medical and surgical services of teaching physicians in hospitals that have elected cost payment are not reimbursed under the fee schedule (though this situation seldom arises).

States may need to consider the following questions regarding types of providers to be included in a Medicare RBRVS-based fee schedule:

- Are there providers of physician services that are included in the Medicare fee schedule that should not be included in a state's all-payer RBRVS-based fee schedule (such as occupational therapists), and vice-versa?

- How should institutional providers be reimbursed for the provision of physician services?

- Should all services using an RBRVS system be reimbursed regardless of where they are performed? For example, all occupational and physical therapy services provided in both the hospital and outpatient setting?

- Should the state adopt Medicare's limitations on billing for the services of physical and occupational therapists, clinical psychologists, and clinical social workers?

State boundaries cause a special concern generally not encountered by the Medicare program. Specifically, will payers permit balance billing beyond the fee schedule amount for providers outside the state? Most Medicaid programs prohibit balance billing by all providers, regardless of location, rendering this issue moot. However, state law many not extend to providers outside the state for other payers. A state has several options which it can pursue including direct negotiations with out-of-state providers for limits on balance billing. Payers can also pay patients directly for services rendered and let out-of-state providers try to collect the entire bill from patients.

3.9 SCOPE OF SERVICE COVERAGE

Policymakers must decide which services will be included and which ones excluded from the RBRVS-based fee schedule. The MFS pertains to most Medicare covered physicians' services as defined by Title 18 of the Social Security Act, including:

- Professional services of doctors of medicine and osteopathy, doctors of optometry, doctors of podiatry, doctors of dental surgery and dental medicine, and chiropractors.

- Supplies and services that are provided *incident to* physicians' professional services, such as those of a physicians' assistant, where *incident to* is defined by situations where services or

supplies are furnished as an integral, yet *incidental*, part of the physician's professional services during diagnosis or treatment of an illness or injury. The employed non-physician's services must be rendered under the physician's direct supervision, which requires that the physician either be present in the room or in the office suite and immediately available to provide assistance and direction when called upon.

- Outpatient physical and occupational therapy.
- Diagnostic tests other than clinical laboratory tests.
- Radiology services.

Early in the development process, the state must decide what types of physician services will be paid under its RBRVS-based payment system. It is important to note that not all services provided by physicians, limited-license practitioners, and non-physician providers are covered or reimbursed under the Medicare Fee Schedule. Therefore, RVUs do not exist for all services physicians or others may provide to payers' clients. Examples of uncovered services include clinical diagnostic laboratory services, preventive health care visits, most immunizations, and services priced specially by the Medicare carriers. A complete description of the services that are excluded from the Medicare fee schedule by specific reason for exclusion is provided in Appendix B. Clinical diagnostic laboratory services are excluded from the MFS because they are not considered "physician services" under Medicare law. In addition, preventive health care visits and most immunizations are excluded from the fee schedule because they are either Medicare non-covered services or are excluded by regulation. Finally, there are services that continue to be priced specially by the Medicare carriers. Examples include new procedures for which there are no national codes, low-volume and extremely expensive services such as liver transplants, and procedure codes that represent a mixture of services.

As noted earlier, Medicare does recognize the payment for the provision of most of these services by non-physician providers when the service is incident to a physician service. In selected circumstances, non-physician providers may provide and bill independently for services considered by Medicare to be physician services. In these instances, payment is generally made based upon reasonable charges, non-physician fee schedules, or the physician fee schedule.

States must become aware of the types of services included under RBRVS payment and specific Medicare coverage issues when using the MFS as a model. Questions related to the types of services to be included are:

- Does Medicare's definition of physician services seem appropriate for the state's payers?
- Are there services that are frequently provided to the state's payers' clients, but excluded from the MFS, that should be included in the state's fee schedule?
- Does Medicare's payment policy for bundling of incidental supplies appear reasonable?

In addition to services covered under the MFS-based fee schedule, a state must decide how each excluded service will be paid and how to develop a standard set of payment policy rules across all payers covered by the new system.

3.9.1 Anesthesia Services

An important issue regarding service coverage is how anesthesia services will be reimbursed. Under the MFS, anesthesia services are paid differently from other physician services. Payment for anesthesia services is based on the sum of procedure-specific relative value units and varying time units. HCFA was directed by statute to develop a uniform relative value guide for paying for physician anesthesia services furnished on or after January 1, 1989. In March 1989, HCFA adopted the use of the American Society of Anesthesiology (ASA) Uniform Relative Value Guide and the CPT-4 anesthesia codes for payment; however, it precluded the further use of payment modifiers to reflect the physical status of the patient (e.g., age, physical health status, unusual factors or circumstances). The ASA Guide provides base units reflecting the degree of anesthesia difficulty and risk associated with a particular operation.

The time units are developed from the actual time that the anesthesiologist spends with a particular patient. With the implementation of the MFS, HCFA clarified its definition of anesthesia time to comport with the definition of anesthesia time used by the ASA. For anesthesia services furnished by either anesthesiologists or CRNAs (Certified Registered Nurse Anesthetists) on or after January 1, 1994, reimbursement for actual time is based on fractions of a standard 15 minute time interval. For the past several years, anesthesiologists have been required by HCFA to calculate fractional time units by carrying out the division to one decimal place, e.g., 25/15 minutes = 1.7; rather than rounding up to whole time units.

The sum of the base and time units is multiplied by an anesthesia-specific conversion factor which has been adjusted to account for geographic differences in practice expenses. HCFA created a separate set of conversion factors for anesthesia payment and did not fully incorporate anesthesia services into the Medicare fee schedule because of the retention of the actual time units. An adjustment was made to the set of geographic conversion factors to assure that the anesthesia fee schedule amounts were consistent with the fee schedule amounts for all other services.

There are three practice models for the delivery of anesthesia care: an anesthesiologist who personally performs the service alone; a Certified Registered Nurse Anesthetist (CRNA) who personally performs the service alone; and an anesthesia team consisting of an anesthesiologist who medically directs a CRNA, a student nurse anesthetist or a resident/intern. When practicing alone, the anesthetist is paid the full fee. When practicing as a team on two to four concurrent procedures, the base and time units are devalued for payment purposes directed by the anesthesiologist. A thorough discussion of each practice model is provided in Appendix C.

Questions that a state may need to answer regarding anesthesia reimbursement in the rate setting system include:

- Should anesthesia reimbursement be fully integrated into the RBRVS-based fee schedule? Alternatively, should it be partially integrated into the RBRVS-based fee schedule, by developing its own conversion factor and adjusting anesthesia fee schedule amounts to be consistent with fee schedule amounts for other services?

- Should the state consider adopting the current Medicare payment policies for anesthesia care that (1) preclude the use of payment modifiers to reflect the physical status of the patient; and (2) provide separate payments to physician anesthesiologists and non-medically directed CRNAs for performing specialized services such as placement of Swan-Ganz catheters, central venous pressure lines, etc.?

- Should HCFA's uniform relative value guide (which is based on the ASA's 1988 Relative Value Guide, CPT-4 anesthesia codes, and a uniform definition of anesthesia time) be used as a basis for an anesthesia fee schedule?

- Should the state consider adopting the current Medicare payment policies for nonmedically directed CRNAs, including the movement toward payment parity by 1996?

- Should the state consider adopting the Medicare payment policies for anesthesia teams that will go into effect on January 1, 1994?

- Should the state consider adopting the Medicare payment policies for an attending physician relationship that went into effect on January 1, 1994?

3.9.2 Clinical Laboratory and Pathology Services

Medicare payment policies for clinical laboratory and pathology services are rather complex, as payment varies not only by type of service but also by place of service and numbers of patients being served. For example, many pathology services are typically rendered in a hospital setting and are considered by law (under Medicare) to be for the general benefit of the hospital population and, therefore, are generally reimbursed under Medicare Part A hospital payment rules. However, a pathology service that is directed to an individual patient in a hospital setting is reimbursable under the Medicare Part B physician payment rules, e.g., a genetic examination.

Currently under the MFS, payment is made for the professional component of some selected laboratory and pathology services, and for the technical component of certain physician pathology services when provided through a laboratory that is independent of a hospital and a physician's office. However, of the 1,100 services defined in the Pathology and Laboratory Section of the AMA's CPT manual, fewer than 100 services are recognized as physician services under Medicare law. Of the remaining 1,000 plus services listed, most are considered clinical diagnostic laboratory services and, therefore, excluded from the Medicare physician fee schedule. Reimbursement for these services when provided in a physician's office or in an independent laboratory is based on Medicare's Clinical Diagnostic Laboratory fee schedule. (A more detailed discussion is provided in Appendix D.)

When the MFS was developed, HCFA defined a new category of services, "clinical laboratory interpretation services," that are reimbursable under the MFS. These are services for which it is generally necessary for a laboratory physician to furnish an interpretation of the results. Some clinical diagnostic laboratory services have only a professional component under the MFS. In 1992, only 15 such services were included. Starting in January 1994, four additional codes joined the list of clinical diagnostic laboratory services. For these 19 services, HCFA established RVUs based on work, practice expenses, and malpractice costs.

In addition, there are circumstances under which reimbursement to physicians may be made for consultative pathology services if specific criteria are met. Consultative pathology services are a professional component service only.

Several important questions need to be considered by states considering how to reimburse clinical laboratory and pathology services:

- Only selected clinical laboratory and pathology services are considered physician services and covered under the Medicare fee schedule. Should these services be in the state's RBRVS-based fee schedule?
- Should the Medicare Clinical Diagnostic Laboratory fee schedule be used only to pay for clinical diagnostic laboratory services as defined by Medicare?
- How should a state consider paying for autopsies and supervisory pathology services that are considered hospital-based services under Medicare?

3.9.3 Additional Supplies

Another important issue is payment for additional supplies. These supplies are incident to a physician's service but are generally not the type of routine supplies included in the practice expense RVU. Providers have argued that service payments are inadequate to compensate for these incurred expenses. Most payment systems do allow providers to bill certain incident supplies separately. Medicare lists 72 separate CPT codes under which additional payment for supplies is allowed if the procedure is performed by a physician in the physician's office (for example, lumbar puncture trays, thoracentesis trays, cystoscopy trays, surgical trays, catheter insertion trays, bone marrow aspiration trays, and venous access catheters). A practice expense RVU of 0.96 is established for supplies incident to these procedures if the physician requirement is met.

There is some limited empirical evidence in support of separate payment for these services under Medicare's physician payment system. Since the practice expense component in the Medicare RBRVS was derived from allowed charges, and historically some Medicare carriers allowed separate billing for these items, there is some evidence to suggest that expenses associated with the purchase of these items should be paid separately.

- A state must decide whether or not to follow Medicare's lead and reimburse physicians separately for these supplies, and whether or not there are other supplies or items for which they wish to make additional payment.

3.9.4 Radiology

Numerous policy decisions concern the reimbursement of specific radiology services, including interventional radiology, portable x-rays, low osmolar contrast media, and radiation oncology management services. Each is described below.

With the implementation of the MFS, payment for interventional radiology was standardized across Medicare carriers by discontinuing the use of "complete" or comprehensive procedure codes and requiring separate billing for the components of these services. In general there are three components: the supervision and interpretation of the radiological service, the primary interventional nonradiological service (such as a surgical service), and associated procedures. The complete or comprehensive procedure codes were deleted from the 70000 series of codes in the AMA CPT manual. The codes for interventional radiology services now reflect only the supervision and interpretation of these services. Relative value units were developed that reflect the appropriate level of service for each of the component codes. Payment for the associated procedures follows the multiple procedure code payment modification: 50 percent for the first associated procedure, 20 percent for the second associated procedure, and 10 percent for each additional procedure.

The MFS also pays for the provision of portable x-rays. Services of portable x-ray suppliers may be divided into three components: professional, technical and transportation. All three components are paid under the MFS using the same conversion factors that apply to all other physician services. RVUs have been developed for the professional and technical components. In addition, a Level II code and national RVUs apply to the setup and positioning of patients in nursing homes or the patient's home to reflect the additional costs incurred by portable x-ray suppliers for these services. Carriers have been instructed to price the transportation component based upon local costs.

For radiological procedures that use low osmolar contrast media (LOCM), HCFA has instructed carriers to make separate payment based upon the lower of the estimated actual acquisition costs and the published wholesale price of the media. Carriers were instructed to survey actual invoice prices paid by physicians. Payment for the use of high osmolar contrast media has been addressed through the technical component of the respective diagnostic procedure codes. Payment will be made for LOCM when used for non-hospital patients with one or more of the following characteristics: (1) a history of previous adverse reaction to contrast material, (2) a history of asthma or allergy, (3) significant cardiac dysfunction, (4) generalized severe debilitation, or (5) sickle cell disease.

The MFS incorporates the payment methodology for radiation management services adopted under the radiology fee schedule implemented in 1989. Specifically, under the MFS physicians are required to bill for weekly treatment management, in place of daily treatment management billings. The radiology fee schedule, which was integrated into the MFS, applies to radiology services provided by or under the supervision of physician radiologists. As a consequence of the integration of the radiology fee schedule into the MFS, Medicare allows

payment to radiation oncologists for patient management that was actually furnished by non-physician providers under a physician oncologist's supervision. In addition, the definitions of CPT codes 77336 and 77370 were changed to reflect technical component-only codes. Payment is made without regard to the specific-energy levels of the equipment or location of equipment.

A state should be prepared to answer the following questions:

- Should the state adopt Medicare's payment policy for interventional radiology?
- Should the state adopt Medicare's payment policy for portable x-ray and develop the same transportation payments across all participating payers?
- Should the state adopt Medicare's payment policy for low osmolar contrast media?
- Should the state adopt Medicare's payment policy for radiation oncology management services?

3.9.5 Critical Care Services

Medicare recognizes critical care services through two codes:

- 99291: Critical care, including the diagnostic and therapeutic services and direction of care of the critically ill or multiple injured or comatose patient, requiring the prolonged presence of the physician: first hour.
- 99292: each additional 30 minutes.

Physicians have been instructed by HCFA to use these codes regardless of whether the visit is initial or subsequent. In addition, physicians are precluded from billing for procedures and services that HCFA considers to be attendant to critical care management. Examples of these types of services include the insertion of arterial lines and central venous pressure monitoring lines.

A state will need to address the issue of payment for critical care codes under its RBRVS-based fee schedule:

- Should these services be included under RBRVS?
- Should the state adopt Medicare's approach?

3.9.6 Chemotherapy Administration

Chemotherapy administration could be paid for in the RBRVS system. Under the MFS, physicians may bill for an office visit on the same day that chemotherapy is administered as long as the visit is separately

identifiable and documented. The relative values for the chemotherapy administration codes 96400 through 96425 do not contain any estimate of physician work since these services are assumed to be performed by personnel under the direct supervision of the physician or by hospital employees. Payment is made for these codes only if the service is provided in the office or other non-hospital setting. Separate payment is made for each chemotherapeutic agent furnished on the same day. If the chemotherapy is provided by several routes, then payment is made for all routes of administration. For example, if on the same day, adriamyacin is given by a "push" technique and cisplatinum is given by an "infusion" technique, both the "push" and the "infusion" technique may be billed. Billing is submitted for each of the chemotherapeutic agents using the appropriate Level II code. States must answer the following questions:

- Should chemotherapy administration be paid under RBRVS?
- Should Medicare's payment policies and definitions be adopted?

3.9.7 Nursing Home Visits

Nursing home visits are another type of service that a state may wish to evaluate in terms of payment under its payment system using RBRVS. Previously, payment under Medicare required the use of modifiers: MP for multiple patients treated and SP for a single patient treated. The SP and MP modifiers were abolished under the MFS. Now under the MFS, payment for treating acute conditions at a nursing home is made based on the appropriate CPT visit code and is not adjusted for number of patients seen at the facility.

A state's evaluation of the MFS would answer the following:

- Should nursing home visits be paid under a fee schedule based on the RBRVS?
- Are Medicare's definitions and payment policies reasonable?

3.9.8 Electrocardiograms

Another service to be considered for the rate setting system is electrocardiograms. HCFA was prohibited by OBRA-89 from making separate payments for the interpretation of electrocardiogram (ECGs) codes 93000, 93010, 93040, and 93042. Instead, RVUs were added to office, emergency room, hospital, nursing facility, nursing home, and home visit codes; and to office and hospital consultations and critical care service codes. Effective in 1994, this statutory provision was rescinded. If states decide to make separate payment for ECGs then they must employ Medicare's RVUs from 1994 or generate their own RVUs. Use of earlier years' RVUs would require adjustments for office, emergency room, hospital, nursing facility, nursing home, and home visit codes; and to office and hospital consultations and critical care service codes to effectively "back out" the added RVUs under the ECG policy prior to 1994.

A state developing a rate setting system modeled on Medicare's RBRVS will need to decide:

- Will separate payment be made for ECGs under the new system?
- Will Medicare's RVUs be adopted, or will the state generate its own RVUs?

3.9.9 Chiropractic Services

States will need to decide whether and how to pay for chiropractic services. Under the MFS, chiropractors are considered physicians for payment purposes only when performing manipulation of the spine to correct subluxation shown to exist by x-ray, and reimbursement for chiropractic services is limited to a single code--A2000, manipulation of spine. Medicare does not pay for the interpretation of an x-ray or diagnosis by a chiropractor because chiropractors are not considered physicians for this particular purpose. Furthermore, under the MFS Medicare does not pay chiropractors for physical therapy services.

A state may want to consider what type of payment policy it wishes to use for chiropractic services, given its own mix of providers and population, and address the following:

- Is Medicare's policy of covering only one code acceptable?
- Should other chiropractic services be included in the RBRVS?

3.10 RATE DIFFERENTIALS AND ADJUSTMENTS

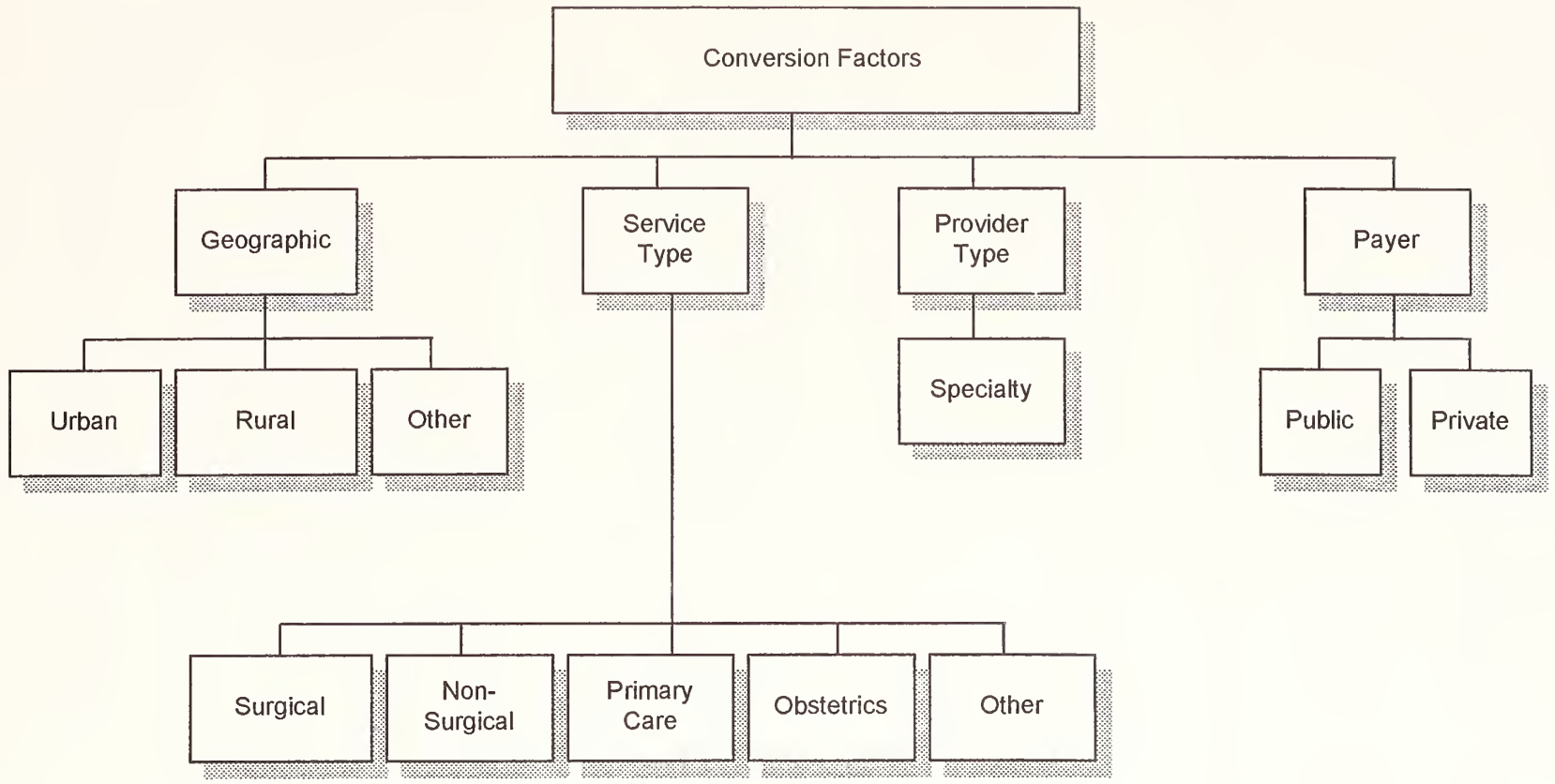
Under RBRVS, fees will automatically differ according to their total relative value units. However, states may also wish to vary fees using multiple conversion factors, modifiers to relative value units, or recognition of different geographic location of the provider or sites of service, e.g., office versus hospital.

3.10.1 Multiple Conversion Factors

The most direct and comprehensive way to vary fees is through multiple conversion factors. (See Figure 3-2.) A state can decide how many conversion factors it will use and which service types, providers, and locations will be affected. A single conversion factor could be applied to all services, all providers, and all locations. However, policy considerations may result in the use of multiple conversion factors. For example, a state may wish to apply a higher conversion factor for certain classes of services or specific geographic areas to assure access to care. If a physician specialty will be adversely impacted by RBRVS, the state could decide to apply a separate conversion factor to the specialty.

Medicare began the MFS with a single non-anesthesia conversion factor. During 1993, two non-anesthesia conversion factors were utilized: one for surgical services (CF = $31.962) and one for non-surgical

FIGURE 3-2
BASES FOR SETTING MULTIPLE CONVERSION FACTORS



artemis\draft\fig3-2.ppt\nab

services (CF = $31.249). In 1994, a third non-anesthesia conversion factor for primary care services was added. The 1994 conversion factors are: non-surgical, non-primary care services, $32.905; primary care services, $33.718; and surgical services, $35.158. Services covered under each conversion factor are subject to the expenditure limits and updates set for those services. For instance, all services in the surgical category will be subject to the same update in the conversion factor based on the growth in surgical service expenditures. Alternatively, states could have different conversion factors based on specialty.

States will probably want to have different conversions for public versus private payers. At least initially, rate setters are inclined to set average payments according to the existing hierarchy of allowable fees. Over time, payer differences could be eliminated.

States will need to address the following questions regarding conversion factors in their fee schedules based on RBRVS:

- Should a single conversion factor be applied to all participating payers?
- On what basis should conversion factors vary? By service type? By region? By provider type? By payer?
- If multiple conversion factors are used, should each vary across payers within the state?
- What data should be used and how will the conversion factors be calculated? (Will budget neutrality be maintained?)

The use of multiple conversion factors adds complexity to the RBRVS-based fee schedules for the rate setting system. Each conversion factor will require an update over time according to some specified protocol. As noted later, updating will be a very important aspect of the state's payment system.

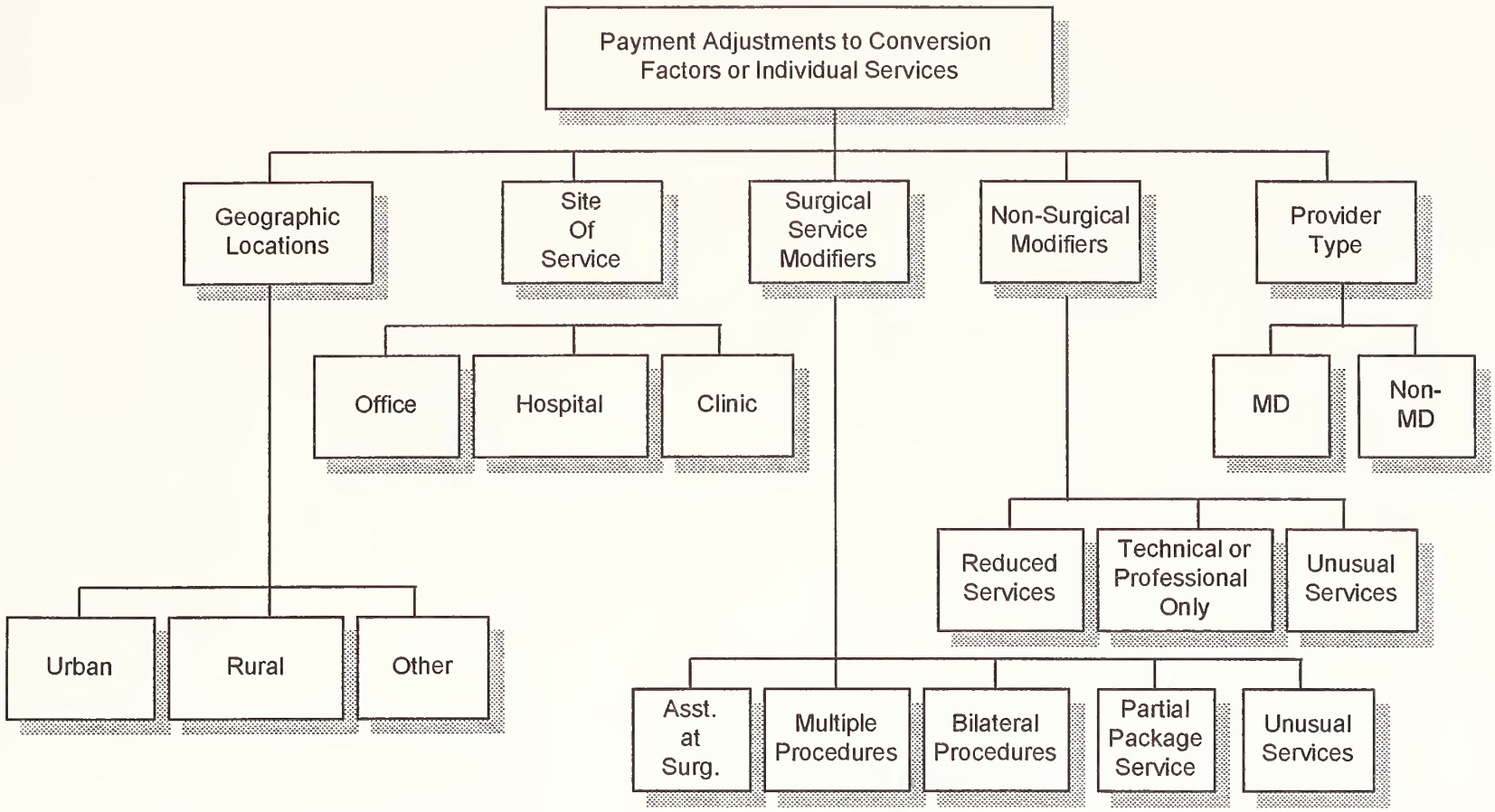
3.10.2 Payment Adjustments to Conversion Factors or Individual Services

Fees may need to be adjusted for several reasons (Figure 3-3), the most common being geographic location. As discussed above, this can be done through distinct conversion factors. However, Medicare uses Geographic Practice Cost Index (GPCI) values to adjust RVUs, which then causes fees to vary across areas procedure-by-procedure. If a state has rural and urban areas with significant cost-of-living differences, it may wish to adjust fees on that basis. Fee differentials could be justified on the basis of varying costs of resource inputs.

A state must consider the following questions for differentiating fees geographically:

- Do physician service input prices (e.g., staff salaries, rents, malpractice premiums) vary significantly within the state?
- Are Medicare GPCIs acceptable in the state as a geographic fee adjuster?

FIGURE 3-3
TYPES OF PAYMENT ADJUSTMENTS



- Are there alternative geographic adjusters to Medicare's GPCIs?
- Will having fee differentials facilitate attainment of the state's access and other policy goals?

Medicare applies a site-of-service adjustment or outpatient limit to the fees for a set of about 300 services considered predominantly office-based when these services are performed in hospital inpatient or outpatient departments. See Appendix G. (Emergency services are also subject to this adjustment unless billed under emergency room visit codes 99281-99285.) That is, if a procedure is performed in physicians' offices more than 50 percent of total occurrences, then these procedures are subject to a reduction in the practice expense RVU when the service is performed in inpatient or outpatient departments. The adjustment technically does not change the conversion factor and is independent of traditional geographic definitions.

The rationale behind this adjustment is that *total* practice expenses incurred by physicians are lower if the procedure is performed in an inpatient or outpatient department instead of a physician's office. Indirect expenses (e.g., billing costs, correspondence with patients, etc.) associated with a procedure performed outside the office may still be incurred; hence, the practice expense RVU is not reduced to zero. The site-of-service adjustment attempts to avoid paying twice for the *direct* practice expenses (e.g., supplies, medical assistant time, etc.) associated with a procedure (since Medicare hospital reimbursement covers the facility charge). In addition, it is intended to be incentive-neutral, leaving the physician to choose the service site based on clinical reasons rather than payment considerations.

A state may wish to address the following:

- Is the list of services to which Medicare imposes the site-of-service adjustment appropriate for the state?
- If not, what adjustment is appropriate?

The state will need to review a list of modifiers and their definitions and decide whether and how they will be used in its payment system based on RBRVS. In general, modifiers are often used in conjunction with procedure codes to reflect service definitions, payment policies, or specific information indicating unusual clinician effort. If the required effort is very large or reflects significant differences from the norm in the nature of the service, a separate CPT code may be called for. Modifiers can serve a useful function for applying payment policy rules. For instance, a modifier can be used to identify claims submitted by an assistant at surgery. When surgeons perform multiple procedures during the same operation, Medicare discounts fees for additional procedures under the assumption that the extra effort involved is somewhat less. Similarly, when a surgeon performs an operation on both sides of the body at once (e.g., knee replacement), the provider is paid 150 percent of the fee for a single procedure. When the surgeon is involved in only the pre- or post-operative phase of an operation, only a portion of the global fee is paid. Surgeons may also receive a higher fee for especially lengthy or complicated procedures.

Nonsurgeons may also have their fees modified if they provide only the technical or professional (i.e., interpretive) component and not the entire service. A state may wish to deviate from Medicare in the fees it pays different providers. For example, it may choose to pay non-physician providers at parity with physicians because of concerns over beneficiary access to care. The state might decide to provide physicians with reimbursement for consultative and supervisory time spent with non-physician providers. A state may believe that parity in payment between physicians and other medical professionals is necessary to encourage providers to provide services throughout the state to beneficiaries whose access to care would be even more limited otherwise. A state may also decide that a reduction in the fee would not adequately compensate the non-physician provider and physician when the services are provided jointly.

Modifiers can also be used to collect information for the state to analyze for future policy considerations. For instance, a modifier could be used to identify bills submitted by nurse practitioners.

Medicare has adopted most of the modifier definitions in the AMA CPT-4 manual. Specific Medicare policies pertaining to modifiers are listed in Appendix E.

A state must review each modifier and decide:

- Whether and how each modifier will be employed.
- What payment adjustments, if any, will be made under an all-payer physician payment system based on RBRVS.

3.11 SYSTEM IMPLEMENTATION

Implementation involves many issues in addition to the payment policies and technical aspects of producing fees. For instance, what forms will providers use to bill payers? Will all payers in the state adopt a single form? What are the computer and management information system requirements for the new fee schedule? Will changes in organizational structure be required? Before a system based on Medicare's RBRVS can be put in place, a state must make fundamental decisions on types of services and types of providers to be included in the fee schedule and on a myriad of policies affecting fee levels. The state can then complete the technical development of the fee schedule.

3.11.1 Data Processing

Technical development of a fee schedule specific to a state requires actual claims data from the payers in that state if the base year fee levels and resulting conversion factors are to reflect the state's own procedure mix, payer mix, and payments. It would be unrealistic to simply adopt the MFS "as is" or arbitrarily adjust Medicare's conversion factors and payment policies without calculating base year fees. Assuming a payer(s) wishes to set the

baseline conversion factor using its own claims history, physician claims must be processed. Editing and cleaning the data may be a particularly arduous task but is critical for generating valid baseline estimates. Once the data elements have been cleaned and edited, and any rebundling edits have been performed, the various payment policies can be modeled by using specific payment policy algorithms. These algorithms should be formulated to accommodate individual policies adopted during the policy development phase in ways that reflect the new policy environment under the state's physician payment system based on RBRVS.

3.11.2 The Initial Conversion Factors

The initial conversion factors must be calculated under some selected constraints, such as a requirement for budget neutrality or an overall spending target, to enable payers to conduct impact analyses. The state will need a computer model to simulate the projected impact of the new payment system on providers and services. The final conversion factors can then be adjusted by the state to alter fees and projected total outlays. Obviously, policy decisions on the types of providers and services to be included in the fee schedules will have significant effects upon the factors. Other policy decisions that are important to the calculation include the number of separate factors to adopt and geographic input price adjustments. Under the Medicare program, physician services are paid according to four separate conversion factors: one for anesthesia services, one for surgical services, one for primary care services, and one for non-surgical/non-primary care services. If budget neutrality is imposed, the separate conversion factors are based upon payments and service volumes only within their own service groups. Alternatively, a state can make either an across-the-board or selective adjustments of conversion factors to attain a budget target.

A second issue affecting the conversion factors is that of geographic adjustments. The actual values for the conversion factors will depend upon the distribution of services across locations if geographic adjusters are applied. If the bulk of services are provided in large urban areas, for example, then the statewide conversion factor is likely to be depressed due to higher cost-of-living geographic adjustments to RVUs that form the denominator of the conversion factor (allowed charges are in the numerator). However, the higher GPCI values in urban areas (see equation 2) will serve to raise urban payments, while rural areas will probably see lower relative fees because of lower geographic adjustment factors.

3.11.3 Transition to the Rate Setting System

How the state moves from its current physician payment system to one based on RBRVS is a very important policy issue since it involves potentially significant payment redistributions and administrative consequences. The transition strategy and methodology should be determined well before initial implementation as part of the policy development process. Specific terms of the transition can be defined after impact simulation studies are completed on changes in provider fees under a fee schedule based on RBRVS.

One transition option is an immediate, one-time movement to RBRVS-based fee schedules. This may minimize the administrative burdens borne by the state in implementing the new system; however, an instantaneous switch could cause severe dislocations in the medical community. Another transition approach would be to phase in the new system gradually, blending it with the existing fee structure. This has been the Medicare approach. Medicare began phasing in the MFS using its RBRVS on January 1, 1992. The phase-in period is designed to take four years and should be completed by January 1, 1996. Medicare's transition methodology is fully described in Appendix F.

A state will need to consider the following regarding the transition:

- Should RBRVS fees be phased in or implemented all at once?
- If fees are to be phased in, on what basis should this occur (e.g., by type of service, provider type, location)?
- If fees are to be phased in, is Medicare's methodology appropriate (e.g., duration of transition, fee change corridors)?

Any phase-in method adopted will be more complicated for the state than would an all-at-once implementation. This added administrative burden should be weighed by the state. However, equity and policy considerations may outweigh the administrative burdens from a phase-in approach.

3.12 UPDATING PAYMENTS AND SERVICE CODES

Medicare updates its fees by updating their components--the RVUs, the conversion factor, and the geographic adjustment factors. The update methodologies adopted for the state's new payment system will shape the system over time and influence its long-term performance. The new system should therefore have well-conceived protocols for updating fees. It must decide how and when fees will be updated. As technology changes, new procedures will be created, obsolete ones dropped, and the relative values of others adjusted. How will volume and intensity of services be monitored or controlled within budget constraints?

3.12.1 Technological Change and RVU Updates

The state's new fee system must be flexible enough to accommodate changes in medical technology. Each year, a significant portion of the CPT is revised by the CPT Editorial Panel. The AMA Specialty Society RVS Update Committee (RUC) was established to develop new RVUs for new and revised CPT codes. HCFA has established a formal process to update the RVUs, which utilizes recommendations by the RUC and input from an advisory committee and subcommittees (where appropriate). Furthermore, HCFA publishes all work RVUs (new and revised) in the *Federal Register* for public comment at least every five years. Changes resulting from the five-

year review will be effective January 1, 1997. Interim RVUs will be created by HCFA for new services or those with definitional changes to reflect updates in the CPT, and these are subject to comment. Changes made to interim RVUs for new/revised codes for which HCFA receives comment are effective the following year.

The difference between how Medicare incorporates technological change into hospital payments and physician payments is noteworthy. For hospital services, changes in technology are captured in the update to the standardized amount (for DRGs) based upon a global "technology allowance." In contrast, any new technology in physician services is reflected in a new procedure code that embodies the technology rather than in an overall adjustment to the relative values or conversion factor. As such, adjusting for technical change is more complicated and burden in setting physician fees. Fortunately, HCFA does most of the work updating codes and relative values.

A state must decide how RVUs will be updated and should consider the following questions:

- How often will RVUs be updated, new ones added, or old ones deleted?
- Should the state defer RVU adjustment decisions to HCFA and the RUC or develop its own review mechanism?

3.12.2 Updating Conversion Factors

In addition to updating RVUs and procedure codes, a state will need to develop a methodology for updating its conversion factor(s). Under the Medicare program, for example, the Secretary for the Department of Health and Human Services is required to submit a recommendation for the MFS updates for the following calendar year by April 15 of each year. Congress has the option to act on the Secretary's recommendation or set its own updates by October 15. If Congress fails to update the conversion factors by that date, the default mechanism established by law incorporates the Medicare economic index (MEI) and adheres to the Medicare volume performance standards. The MEI measures annual changes in physicians' practice expenses, while the volume standards are set by Congress as an "appropriate" target for growth in physicians' service expenditures. The initial 1992 CF was calculated by HCFA, but subsequent CF(s) will not be recalculated, only updated using trend adjustments. A state considering volume performance standards may wish to update its own conversion factors using its own expenditure targets and a state-specific measure of physicians' practice expenses.

The update methodology used by the state will affect the distribution and level of payments in future years, possibly even more than the base-year fee levels. Therefore, a state will need to carefully consider its update approach and answer the following questions:

- Will Medicare's approach using volume performance standards be adopted and, if so, on what basis (all physicians, by specialty, by service type)?
- If volume standards are adopted, what criteria will be established to set expenditure growth targets?

- Should the conversion factor be updated prospectively or retrospectively?
- Are there suitable alternatives to the Medicare update approach (for example, negotiations)?

3.13 MODIFYING OTHER PAYMENT POLICIES

Modifying payment policies from time to time, other than the resource-based scale itself, provides a powerful lever which can be used by the state to effect significant changes in physician payments or the distribution of services as circumstances change. Various policies may become ineffective or outdated after some period of time, while the adoption of new policies may become necessary to achieve original and new program goals.

An important advantage to modifying policies, rather than RVUs, is that the underlying framework of the system remains intact, thus preserving the integrity of the system among the provider community. For instance, if the state wishes to encourage more office-based surgeries and procedures, it could expand the list of procedure codes that are subject to the site-of-service differential and/or the sites to which they apply. Such a policy change does not alter the underlying RVUs; rather, payments are adjusted to reflect a policy via a reduction in one RVU component according to the physical location of the service. Another possible policy rule change to influence service distribution could be to pay non-physician providers at parity with physicians for a specified set of services. In this case, the policy would encourage substitution (of services) away from physicians and encourage non-physician providers to enter the market, perhaps to ensure beneficiary access to care in underserved markets. Removing parity would have the opposite effects.

States should also consider the following questions about updating payment policies:

- What mechanism needs to be established to review and revise payment policies?
- Does a new committee structure involving providers need to be established?
- How often should payment policies be reviewed?
- What protocols need to be established for provider appeals?

4.0 ORGANIZATIONAL STRUCTURE AND ADMINISTRATION OF RATE SETTING SYSTEMS

4.1 INTRODUCTION

This chapter identifies important issues that states must consider in implementing and administering a multi-payer rate setting system. Emphasis is placed on hospital rate setting systems, which require greater resources than do physician rate setting systems, and on which more accumulated state experience is available for study. Major topics discussed are as follows:

- Content of the enabling legislation.
- Structure of the rate setting agency.
- Authority of the agency.
- Administrative procedures.
- Timing of program implementation.
- Required staff resources for a hospital rate setting system.
- Organizational structure and resource requirements for a physician rate setting system.

4.2 CONTENT OF THE ENABLING LEGISLATION

The enabling legislation for the rate setting program must designate or create a state agency to implement and operate the rate setting system. If a new agency is to be created, the legislation must authorize the new agency and specify its structure, composition, and powers. If an existing agency is to operate the system, the legislation must assign the program to the selected agency.

In specifying the agency's responsibilities, the enabling legislation can describe them in general terms or spell them out in great detail. Clearly, many of the issues addressed in this chapter can be specified either in the enabling legislation or in the agency regulations, or simply through managerial decisions by agency personnel. If tasks are described in general terms, it is crucial that the statute specify the criteria that the agency must follow in its execution of the task. For example, the enabling statute for the Maryland rate setting program is very general, but specifies three broad rules that the agency must follow: (1) Costs must be reasonable, (2) reimbursement must be tied to costs, and (3) equitable payment must be achieved across hospitals and payers. Other states, including Connecticut, New York, and Minnesota have legislation specifying the attributes of the rate setting program in great detail.

There are advantages and disadvantages to both approaches. If the statute is general, the rate setting program can essentially be designed by experts who presumably have more knowledge than legislators have about the mechanics of hospital rate setting. Further, the system can be changed through rule making or other agency policymaking processes to accommodate changed circumstances. If the design of the rate setting system is detailed in statute, only the legislature can make changes, which limits the ability of the system to make needed changes expeditiously. On the other hand, this approach helps to insulate the rate setting agency from some political opposition and pressure from regulated providers, who must press the legislature rather than the agency for change in the system. Also, on judicial review, courts can only invalidate a statutory provision regarding the rate setting system on state or federal constitutional grounds, whereas there are multiple other grounds on which courts can invalidate rules and policies of rate setting agencies.

4.3 STRUCTURE OF THE RATE SETTING AGENCY

4.3.1 Commission or Executive Department

The responsible agency can be a commission or executive department. The agency may be located in an executive agency within state government--presumably the Department of Health--or it may be an independent commission. A commission tends to be less integrated into state government than an executive department, for reasons discussed below.

The statutorily mandated composition of the commission's membership and the terms of tenure and removal for its members influence the degree of insulation of the commission from state government. The statute can mandate that the commission contain members of different political parties or important constituencies. If these members are appointed at the inception of a governor's term and serve for the duration of the term, then the commission is likely to be more integrated into state government. If commission members are appointed for staggered terms and cannot be removed except for cause, then the commission is more insulated from state government.

Both agency types have their strengths and weaknesses. Independent commissions are presumably insulated from political and other pressures associated with executive department agencies. Segregating the rate setting system may increase the credibility of the system with providers and non-public payers. It may also serve to distance the new system from the Medicaid program, reducing the resistance of payers, individuals and providers to participation. It protects the regulatory system from interference by both the executive and the legislative branches. This may increase the appearance of impartiality of the system and may also give the system more credibility with important providers and perhaps payers. Some models of independent commissions are described in the state case studies in Chapters 5-8.

There are also advantages to locating the rate setting function in an executive department of state government. The degree to which the administrative unit is subject to governmental control is the degree to which it is insulated from being co-opted by providers. Providers, in this model, retain the option of influencing regulatory policy via the political process, but are more likely to be kept at arms length by the administrative unit actually operating the multi-payer system.

The makeup of the agency plays an important role in defining its independence and its credibility. One approach is to form a representative commission, with key stakeholders being asked to nominate specified numbers of representatives: Maryland (Chapter 5) provides examples of this approach. A representative commission would include both providers and state representatives in the decisionmaking process, and could also include payers, citizen groups, or any other organized stakeholders. An alternative option is to limit stakeholder involvement to advisory roles and to employ well-respected neutral parties on the commission.

Staffing is an important issue in choosing between a commission and an executive department. Some states already have a large and professionalized Health Department. Especially in a state with substantial regulatory and data management experience, a rate setting system could be implemented more quickly and with less likelihood of errors by using existing resources within the state government. On the other hand, the commission model has the advantage of greater staffing flexibility. State agencies operate under a myriad of civil service and often union rules. Hiring, promotion, etc., are limited by legislative mandates and Bureau of the Budget reviews. If a state needs to develop a skilled staff quickly, attracting and hiring such a staff is far easier outside of state personnel and budgetary systems.

Finally, it should be noted that, in principle, a commission can be created within the legislative branch to provide ongoing expertise when the legislature is dealing with rate setting. Insofar as the legislative branch wishes to have detailed control over regulatory policy, it may want to establish a legislative commission along the lines of the Prospective Payment Assessment Commission and the Physician Payment Review Commission, both of which are legislative commissions created by the Congress. This approach assures greater congressional input into the details of the rate structure for hospitals and physicians. However, under most state constitutions, a legislative commission could not be delegated sufficient authority to actually operate a rate setting system.

4.3.2 Obtaining Public Input

An issue of central importance is managing input from stakeholders--individuals and organizations whose interests are affected by the rate setting system. It is important to develop a way of getting stakeholder input, especially from providers. Provider data are central to the regulatory process, and it is easier to obtain quality data with provider cooperation than without it. Provider dissatisfaction can delay or even derail a rate setting system. If providers choose to resist the system in court, delay is inevitable and

worse outcomes are possible--especially if defensible data and consultation systems are not in place. In any case, stakeholder input is usually legally mandated.

It is possible to require a state agency to engage in extensive consultation with providers, employ advisory panels etc. One could also structure an independent commission so as to give the state considerable control over it. The need is to balance the state's desire to ensure that its goals for the rate setting system are met while obtaining sufficient input from providers to insure that regulations are reasonable and to minimize legal or political resistance. Where the balance is struck is a political decision.

If a representative commission is not used, then one alternative is advisory panels. These advisory panels can be given a large or small role in the process. At one end of the spectrum, their input could be routine and regular and their comments treated as public documents requiring a public response. At the other end, these panels could be little more than cosmetic additions to the decision-making process.

There may be only one advisory panel, or several could be set up to deal with different issues. Panel members could explicitly represent certain groups, or their representative function could be less formal. In either case, the specification of which stakeholders should be present on which panels should be given careful attention. In addition, providers and payers are not homogeneous groups and defining different interests (teaching versus non-teaching hospitals, rural versus urban hospitals, etc.) is important to decisions about membership.

Finally, the charge to advisory panels can be varied. Such panels could be asked to review or comment upon broad policy issues, or they could be constituted as technical consultants. The two approaches are not incompatible and, indeed, technical panel membership could be profitably varied to reflect the particular issues being addressed. This approach can help to obtain input from stakeholders, especially providers, while keeping them at a distance from policymaking.

4.3.3 Relationship to Other State Agencies

An important structural issue is the relationship of the agency to other state agencies involved with other health functions, such as the Medicaid program, a Certificate-of-Need program, or the Children with Special Health Care Needs program, to name a few. In particular, reporting lines from such agencies and from the rate setting agency to the Governor's office affect how interagency coordination will be achieved. If these other health agencies are housed in a larger umbrella agency, such as an executive Department of Health and Human Services, then coordination can be carried out at the secretarial level. If the functions are housed in separate executive departments, coordination may have to be at the level of the governor's office. If functions are housed in commissions, the governor may have little authority over them. In this case, the enabling legislation of commissions will have to specify how policy and other conflicts will be resolved. Additionally, if the rate setting agency is an independent commission, some representation of

public officials may be necessary. The Health Department, the Medicaid program, the Insurance Commission and the Mental Health Department are all interested parties.

If rates under the new system incorporate capital expenditures, then no separate *administrative* issue arises concerning capital reimbursement. Technical problems remain, of course. Issues concerning how different kinds of capital are to be treated and how capital expenses will be related to rates are generic to Certificate of Need (CON) processes and apply regardless of how the capital and rate control mechanisms are administered.

However, if the capital mechanism and the rate setting mechanism are administratively separate, a decision must be made regarding the relationship between the review of capital expenditures and the rate setting process. At a minimum it would be necessary to have the rate implications of capital expenditures analyzed by the rate setting agency before decisions are taken. In Maryland (Chapter 5), health planners and rate setters are not linked administratively, and this has resulted in inconsistent incentive signals to industry. Incorporating capital regulation multiplies the tasks of the rate setting organization substantially. It increases both the workload and the occasions for conflict with providers and so has staffing and political implications.

Finally, if the state also has, or is developing, a rate setting system for physicians, there need to be either formal or informal ties between the entities responsible for the two systems. Such ties could include a sharing of technical expertise and manpower. More importantly, they would help to ensure a consistent alignment of incentives between the hospital and physician systems.

4.4 AUTHORITY OF THE AGENCY

No state has an "all-payer/all-provider" regulatory system. For this reason, this Primer focuses on issues that have arisen in states with multi-payer hospital rate regulatory systems.

The enabling legislation must specify the scope of the agency's authority, including the specific powers that the agency has to implement and operate the rate setting system. The following discussion assumes that the system covers all acute care hospitals and most payers. Requirements for implementing and operating an "all payer/all provider" system would be more extensive, but no state has a system that could be studied for this Primer.

4.4.1 Authority to Obtain Information

The agency must be given the authority to obtain data and other information from regulated hospitals. Specifically, the agency must have authority to require providers to provide their cost data in the forms and on the schedule it wishes, since uniform reporting is a requirement for any program. In general, this involves imposing definitions of costs that must be universally adhered to for reporting purposes.

Uniform accounting practices are not absolutely required--only uniform reporting. Nevertheless the difficulties of obtaining uniform reporting without uniform accounting are obvious.

The authority to enforce these steps is a precondition to developing reasonable inter-provider comparisons and rates. The rate setting system must also have an enforceable mechanism for ensuring that it will obtain necessary data in an timely way and that its inquiries will be responded to quickly. It must be able to enforce its rules and rates without recourse to the legal system. This means that it must be authorized to impose penalties, adjust payments, etc., as an administrative matter. Of course, providers always have recourse to the legal system to redress grievances, but the burden of taking action is on them in that case.

4.4.2 Enforcement Authority

The agency must also have the authority to enforce the rate setting system against noncomplying hospitals. Again, the enabling legislation must specify the powers that are available to the agency to make a recalcitrant hospital comply with the requirements of the rate setting system. The enabling statute should also give the agency the authority to enforce a cease and desist or other type of order in an administrative proceeding or seek the imposition of fines, penalties, or other sanctions in court. The most common enforcement action is an administrative proceeding with a hearing, after which the agency may issue a cease and desist order. In addition to other remedies provided by law, an agency may seek enforcement of its rule or order by filing a petition for civil enforcement in court.

4.5 ADMINISTRATIVE PROCEDURES

The enabling legislation should specify the procedures by which the agency conducts its business. The two crucial areas are: (1) procedures for making rules and policy, and (2) procedures for adjudicating disputes.

4.5.1 Rule and Policymaking

Generally, according to administrative law theory, the legislature must explicitly grant an agency the authority to promulgate rules in order for the rules to have the effect of a statute. Also, the rules must be promulgated according to statutory rulemaking procedures set forth in the enabling statute or the state's administrative procedure act (see below). Agencies can also issue interpretative rules and policy statements to publish policy or other guidance for a program without following any particular rulemaking procedure.

Most states have Administrative Procedure Acts (APA) which establish rulemaking procedures for legislative rules and which govern if the enabling statute is silent. However, state APA rulemaking

procedures are not always as streamlined as are the notice and comment rulemaking procedures under the Federal Administrative Procedures Act. Many states require oral hearings as part of their informal rulemaking procedures, a requirement which can encumber the rule making process. Some states even impose trial-like procedures that can be invoked by providers and other opposition interests. For example, Minnesota's Administrative Adjudication Act allows disappointed parties to appeal rules to administrative law judges. This added procedural protection has limited the effectiveness of rules as a vehicle for making policy under Minnesota's health reform legislation. Consequently, the legislature has felt it needs to be more specific in statutes to address issues that might be dealt with more effectively by rule. Most state APAs authorize the promulgation of rules that have immediate effect on an emergency basis. Also, most state APAs authorize the promulgation of rules on an expedited basis to implement Federal mandates. The legislature may feel that certain issues should be addressed through rulemaking. For example, determining the components of the rate formula on a periodic basis is more appropriately handled through rulemaking than through legislation.

Procedures for making policy should be crafted either by statute or administratively to obtain public input into the policy making process. An alternative or additional method of obtaining input is public hearings. Some sort of hearing is likely to be required by law. These hearings can be numerous and inclusive and can play a large role in rule setting, or not. The number of such hearings, whether they are held, and who is informed and invited all must be decided before the program begins. Solicitation of written comments on proposed rules can be used in addition to public hearings. If state APA rulemaking procedures call for oral hearings and limit authority to modify a proposed rule, the hearing can become a significant barrier to expeditious rulemaking. Negotiated rulemaking proceedings, in which all affected parties are included in negotiations over the content of the rule initially, have proven effective in crafting sound policy and reducing subsequent judicial challenge.

4.5.2 Adjudication

Appeals are inevitable, and procedures to deal with them are necessary. An inclusive rulemaking process with a strong formal or de facto negotiation element can minimize but not eliminate appeals. An administrative appeals process of great formality and with many procedural protections will prolong the appeals process, but it helps to protect against judicial reversal. The Due Process Clause of the US Constitution effectively requires adequate notice and a hearing before adverse action can be taken against a regulated party, unless a genuine emergency requires summary action.

An important issue is what specific agency action will be subject to administrative review and what procedures will accompany such review. If the agency provides review for all of its decisions and policies, it is likely to become bogged down in process as affected providers invoke review procedures. However, the agency can provide administrative review for many decisions by a simple "reconsideration" procedure

in which another agency staff member reviews the initial decision. Agencies should only provide evidentiary "trial" type hearings for decisions, such as close and desist orders, on which the agency has taken final action and where the stakes in terms of protected property interests are so great that the Due Process Clause of the Federal or state constitution may require an evidentiary hearing.

If the rate setting system has an adversarial relationship with providers, appeals to the legal system cannot easily be avoided. In certain states, New York for example, determined legal appeals against the system greatly slowed program implementation. Indeed, appeals continue to run between 1,200 and 1,400 a year in New York, imposing a daunting burden on the state's regulatory infrastructure. In New Jersey, providers routinely appealed rates and other payment decisions and virtually caused the system to collapse. A good way to reduce administrative and judicial challenges to the rate setting program is to enlist provider involvement from the start, both by including providers in rule and policymaking proceedings and by engaging in ongoing consultation with the provider community, both formally, as on advisory panels, etc., and informally, about the specific requirements of the rate setting system and their rationales.

4.5.3 Judicial Review

In drafting legislation for either rulemaking procedures or adjudications of disputes between the agency and regulated parties, policymakers must determine what policies, rules, decisions, and orders will be subject to judicial review. Under current principles of administrative law, if not constrained by a state constitutional provision, the enabling legislation can explicitly preclude matters from judicial review. Otherwise, there is a presumption that judicial review is available for any agency action.

There may be policies or decisions in the rate setting system that the legislature may want to insulate from judicial review and, if so, it must specifically provide so in the enabling legislation. For instance, the legislature may want to preclude judicial review of elements of the rate setting formula established by the rate setting agency in order to preserve the integrity of the rate setting system. For just this purpose, the Medicare statute explicitly precludes judicial review of recalibration of DRGs for the Medicare Prospective Payment System for hospitals. Preclusions of judicial review should not be overused, since they risk antagonizing the regulated community whose cooperation is ultimately necessary for a successful rate setting program.

The statute may also want to provide explicitly for pre-enforcement review of certain rules and policies. Pre-enforcement review requires a statutory provision that all judicial challenges to a rule or policy must be brought within a specified time period. A provision for pre-enforcement review also bars subsequent challenges to the rules. The effect of this provision is to identify challenges to the rule or policy immediately in order to deal with them more expeditiously than would the legal system.

4.6 REQUIRED STAFF

Any rate setting system, even if only one or two payers are involved, requires a substantial professional staff, and a wide range of skills. Expertise in accounting, data collection and analysis, administrative law and procedures, and negotiation and conflict resolution techniques is critical. Maryland has a mature system and well-developed data and decisionmaking mechanisms, and it has a staff of 28 professionals. New York, with a larger hospital system, has a staff of 65, of whom 10 are dedicated to data needs. This staff regulates 264 hospitals and 300 nonhospital providers statewide.

The size of the staff will depend largely on the amount of information the agency must be able to gather and process. This, in turn, depends largely on the level of detail of the data gathered and the number of hospitals and payers involved. The unit and method of payment will affect the scale of the analytical tasks to be performed. A new program without an extensive regulatory history will require more staff than will a program merely building on an existing capacity.

There will also need to be a process-oriented staff to manage stakeholder input, resolve disputes, handle grievances, assist providers in understanding and responding to requirements etc. Staff size will depend on the amount of field work that must be done with hospitals to help them generate the required data, the extent and complexity of the mechanisms used to obtain input from stakeholders and the character of the administrative appeals system.

4.7 TIMING OF IMPLEMENTATION

A final administrative issue is the timing of program implementation. The primary variables have to do with the complexity and level of detail of the data that must be collected versus the size of the staff available to do the work. Each of the substantive decisions discussed in Chapter 2 has timing implications. If, as in Maryland, data are to be gathered at the department level in each hospital, a substantial lead time is required. Likewise, if rates are to be facility-specific, a more time-consuming data collection period must be planned.

If the intention is to review all costs in all hospitals in the state, the time required to implement the program increases. On the other hand if there are to be only selected reviews, implementation can proceed more quickly. A strategy of selected reviews could target specific hospitals for review or could review certain categories of costly services across several hospitals. In any case, a screening criterion is necessary, as is a data system adequate to generate screening data.

A selective review approach may also be used as part of a phased implementation strategy. A program could start with broader rules and limited oversight and develop into a tighter system as data and staff skills develop. In such a case it is important that the phase-in period not generate incentives to providers to position themselves to exploit the final, mature system.

"Make haste slowly" is a maxim that applies to the implementation of any rate setting system. Shortcuts during the implementation stage can be very costly over the long run. They can lead to defective data systems and misguided rate setting approaches, both of which can be very hard to correct once in place. Almost as troublesome, weaknesses in program implementation open the door to court challenges on technical grounds and/or an avalanche of administrative appeals. Either of these can delay the program far longer than even a very deliberate implementation strategy.

4.8 ORGANIZATIONAL STRUCTURE AND RESOURCE REQUIREMENTS FOR A PHYSICIAN RESOURCE-BASED RATE SETTING SYSTEM

The development, implementation, and administration of a new physician payment system using a fee schedule(s) based on the Medicare Fee Schedule is a major undertaking. Any state that decides to install a multi-payer system using resource-based fees will require substantial organizational and staffing support.

4.8.1 Organizational Structure

To oversee the entire process of developing, implementing, and administering a resource-based fee schedule system, an Oversight Steering Committee could be formed (Figure 4-1). The Committee would include the core project team, consisting of internal technical staff and outside contractors, members from various payers, and a designated project manager. It would be responsible for negotiating contracts with outside contractors, assembling a Technical Advisory Panel (TAP) of providers and other stakeholders, scheduling all meetings and project deliverables, directing the technical staff, coordinating and monitoring the payment system development, coordinating joint policy decisionmaking during the policy development process, and providing overall management. The technical staff would be required to consult the Steering Committee on policy and technical issues, present policy and technical issues to the TAP, analyze physician claims data, undertake the actual development of the fee schedule, create a financial impact model, and implement and test the changes made in data reporting and billing systems. The TAP members should include practicing clinicians and other providers and professionals with knowledge of Medicare Fee Schedule and payment policy issues. Responsibilities of the TAP would include advising the Steering Committee and the technical staff on payment policy issues, billing guidelines, and any payment system changes.

FIGURE 4-1

FEE SCHEDULE DEVELOPMENT RESOURCE NEEDS AND TASKS

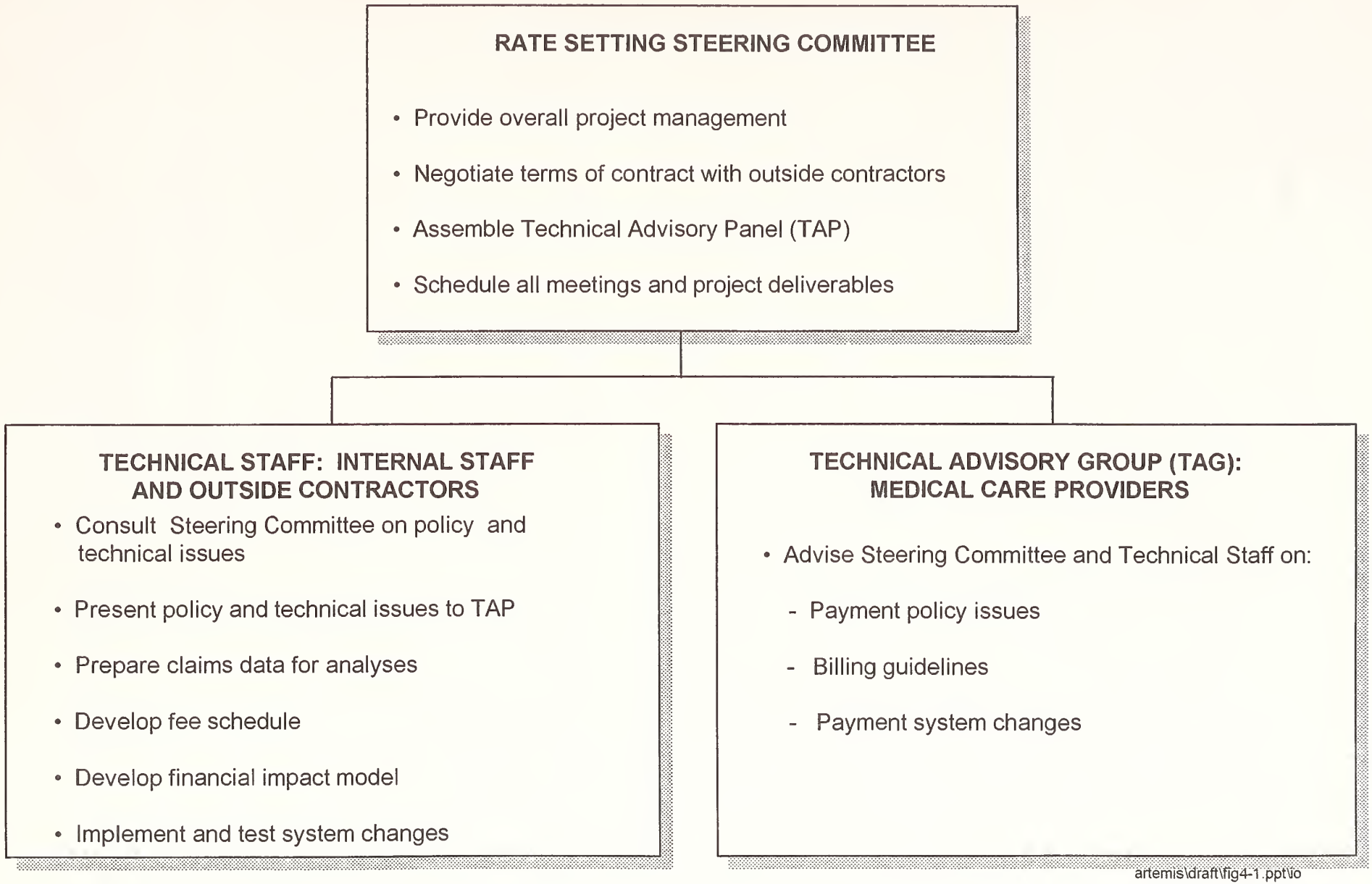

RATE SETTING STEERING COMMITTEE
• Provide overall project management
• Negotiate terms of contract with outside contractors
• Assemble Technical Advisory Panel (TAP)
• Schedule all meetings and project deliverables
TECHNICAL STAFF: INTERNAL STAFF AND OUTSIDE CONTRACTORS
• Consult Steering Committee on policy and technical issues
• Present policy and technical issues to TAP
• Prepare claims data for analyses
• Develop fee schedule
• Develop financial impact model
• Implement and test system changes
TECHNICAL ADVISORY GROUP (TAG): MEDICAL CARE PROVIDERS
• Advise Steering Committee and Technical Staff on:
- Payment policy issues
- Billing guidelines
- Payment system changes

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FIGURE 4.1

SEE SCHEDULE DEVELOPMENT RESOURCE NEED TASKS

4.8.2 Resources Required For System Development

A state will need significant technical expertise to develop a payment system based on a resource-based relative value scale (assuming the state does not simply adopt the Medicare system with only minor adjustments). Most states will want to develop their own base-year conversion factor and payment policy parameters. This will require substantial human resources. The policy development process requires the state to have a full understanding of MFS in terms of its evolution, its strengths, weaknesses, limitations, etc., and of the complete array of policy issues described in this chapter. The project team should include policy analysts knowledgeable in MRBRVS and physician payment policy issues; economists with expertise in physician pricing systems, including the MFS, cost indices, and payment policies; and practicing clinicians having knowledge of payment policies and MRBRVS, as well as a broad familiarity with physician service procedure codes.

During system development, the technical advisory panel (TAP) would be charged with soliciting policy and technical input from providers directly affected by the switch to an MFS-based fee schedules and informing affected individuals and groups about policy decisions made by the state. The project team would meet with the TAP and make formal presentations on MRBRVS and policy issues. This would acquire additional administrative staff to prepare documents and record TAP decisions. At the conclusion of the policy development phase, the project team should produce a comprehensive document of all policies pertaining to the new payment system. This "policy document" would serve as a reference manual for state staff and providers.

Actual calculation of fees for the fee schedule requires computer programmers experienced in processing large physician claims files. Most states will have millions of physician claims annually. These data must be collected from all (or most) payers included in the system before the calculations can begin. Data processing requires a computer mainframe (PCs are not large enough) and the combined efforts and interaction of project team members. RVUs must be obtained for all services to be paid under the new fee schedule, whether from the MFS, alternative RVU systems, or imputed values. If imputed values are to be used, the project team's analysts and economists must determine how they are to be calculated and then derive the RVUs. Thorough data cleaning and editing must be undertaken to ensure unbiased calculation of conversion factors. Finally, algorithms must be developed by the project team to meet the state's own policy specifications before the final conversion factor algorithms are executed.

4.8.3 Resources Required For System Implementation

After the policy profile is established and the fee schedule created, the state must have the capability to implement the new system. The state's own project team must work closely with technical staff from claims processing vendors in the state to assist with modifying or adapting the previous

computer claims processing systems to the new one. Each vendor's system must be able to accommodate all service codes, modifiers, RVUs, conversion factor(s), and payment policies. For example, if a state were to adopt new modifiers, then new fields would have to be created. Billing forms would need to be modified so that all relevant information is captured on each claim. Specific subroutines and pricing modules would have to be programmed into the system as well. Finally, overhauling a vendor's system might be necessary in some instances.

Once the state becomes sufficiently familiar with the entire new system, it should undertake a large educational process. Provider manuals and policy documents will need to be distributed to all providers and payers. Committee members or project team staff could conduct training seminars on the new system for payers and providers.

4.8.4 Resources Required For System Administration

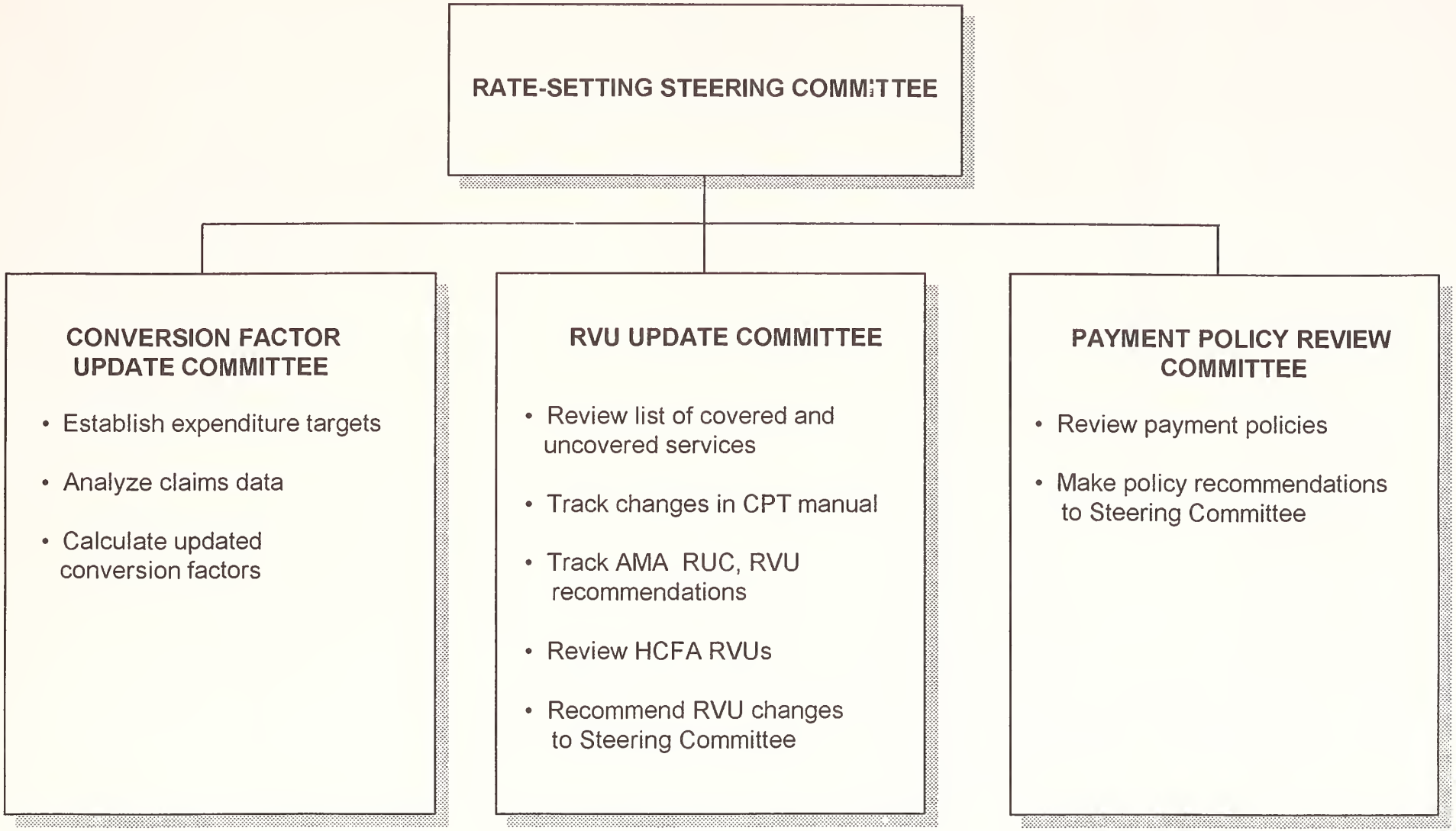
Once the new system is in place, the state must carry out all administrative functions associated with it. First, the state will need to update fees over time. To accomplish this, the MSC might establish subcommittees charged with specific components of the fee schedule (see Figure 4-2). For example, if the state adopts a volume performance standard method for updating the conversion factor (s) (CF(s)), a conversion factor update committee might be formed for this purpose. The committee would first be responsible for establishing the expenditure targets. The committee might also oversee subcommittees with very narrow responsibilities. One such subcommittee might be charged with obtaining the economic indices to be included in a CF update formula. Another subcommittee could be held responsible for obtaining physician service expenditure data from all claims processing vendors. The CF update committee would be responsible for calculating the update factor and instructing claims processing vendors to adjust CF parameters in their systems.

In addition to conversion factors, RVUs and the list of covered services will need to be updated. The state may need a separate committee to carry out these updates. This committee would require staff with expertise in the MFS and clinical knowledge of physician service procedure codes. The amount of resources needed by this committee would depend on the RVU update protocols adopted. A large staff would be required, for instance, if the state decides to review specific services itself and establish its own RVUs for them. Such a committee would require consulting physicians from many specialties with clinical and CPT-4 expertise and knowledge of MRBRVS to assess new technologies and rank the relative costliness of new services among all other services. A much more modest-sized committee would be needed if the state decides to adopt HCFA or RUC RVU recommendations, perhaps after some review of these decisions.

A state might consider forming a payment policy committee to periodically review its payment policies and formulate new policy recommendations. This committee would be staffed by policy analysts,

FIGURE 4-2

FEE SCHEDULE ADMINISTRATION AND MAINTENANCE COMMITTEES AND TASKS


RATE-SETTING STEERING COMMITTEE
CONVERSION FACTOR UPDATE COMMITTEE
• Establish expenditure targets
• Analyze claims data
• Calculate updated conversion factors
RVU UPDATE COMMITTEE
• Review list of covered and uncovered services
• Track changes in CPT manual
• Track AMA RUC, RVU recommendations
• Review HCFA RVUs
• Recommend RVU changes to Steering Committee
PAYMENT POLICY REVIEW COMMITTEE
• Review payment policies
• Make policy recommendations to Steering Committee

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SEE SCHEDULE ADMINISTRATION AND MAINTENANCE

COMMITTEE AND TASKS

FIGURE 4.3

economists, and physicians knowledgeable about MRBRVS and payment policy. The committee should have the capacity to evaluate the effectiveness of each of the state's payment policies in terms of achievement of goals (e.g., control costs or utilization, maintain provider relations, assure access to care). Subcommittees might be responsible for obtaining payment and utilization data for analysis by the payment policy committee.

4.8.5 Appeals Process For a Physician Rate Setting System Based on MRBRVS

A state's rate setting system for physician should include some formal mechanism or process for provider appeals. Some providers will not be fully satisfied with the new system. States with a policy development process should include provider representatives and other stakeholders from the state. The development process provides an opportunity to form an ongoing working relationship between the state and its providers. A well-conceived update methodology will not eliminate provider dissatisfaction, but will help keep it to a minimum. Finally, the establishment of a formal appeals process may limit the nu' 'ber of legal challenges to the new system.

The state could establish a forum for resolving appeals and other payment problems through its MRBRVS Steering Committee, perhaps by forming a Payment Problem Resolution Subcommittee. This subcommittee could be charged with responding to formal complaints filed by providers. Protocols could be established to facilitate problem solving and to avert the filing of lawsuits by providers.

SECTION II

STATE CASE STUDIES

5.0 HOSPITAL RATE SETTING USING REGULATED CHARGES PER SERVICE IN MARYLAND

5.1 OVERVIEW OF THE SYSTEM

In 1971, the Maryland General Assembly created the Health Services Cost Review Commission (HSCRC) in an attempt to control the increase in hospital costs (HSCRC, 1993). Before 1971, payers reimbursed Maryland hospitals for reasonable costs, a system that passed cost increases and inefficiencies through to payers. Between 1971 and 1974, the Commission established a uniform accounting system and data reporting requirements for the state's hospitals. It began to review and approve rates for the state's hospitals in 1974.

The legislature authorized an all-payer hospital rate system to address two problems. First, it was concerned about the rapid growth in hospital costs and the lack of incentives for efficiency under cost-based payment. Second, the Insurance Commissioner had recently prevented Blue Cross from paying for uncompensated care under its contract, with serious financial implications for the state Medicaid budget. Without state legislation, fair and adequate coverage of hospital bad debts by all insurers was not possible.

While it was creating the structure for setting rates in Maryland, the Commission negotiated with the Federal Department of Health and Human Services for a demonstration project grant that included a waiver of Medicare and Medicaid reimbursement rules. The waiver, effective July 1, 1977, was considered essential to achieve equitable pricing for all payer groups (HSCRC, 1993). Maryland maintains the waiver provided that the system remains all-payer and that the rate of increase in Medicare payments per admission in Maryland remains below the rate of increase in Medicare payments per admission nationally. Maryland's "rate-of-increase" criterion differs from the "absolute comparison" test applied to the waivers subsequently granted New York, Massachusetts, and New Jersey from Medicare's DRG prospective payment system. The implications are discussed below.

The Commission emphasizes that it is because of the waiver that cost shifting between payers has been eliminated. Only by including all payers under one set of rate setting rules can the state ensure that one payer or group of payers, such as the commercial insurers, does not pay large cross subsidies for health care provided other groups of patients.

The Maryland system represents a quasi-public utility approach to hospital rate setting in which rates are set and then adjusted for inflation and for volume and productivity changes. The enabling legislation stated three broad goals for the rate setting system, leaving the Commission to specify the operational rules and regulations:

- Costs should be reasonably related to services.
- Charges should be reasonably related to costs.
- All payers should be treated equally.

The Maryland system is fairly complex in detail, but the overall approach is a straightforward example of regulated individual per-service charges. The units of payment are the unbundled services to inpatients (for example, ICU days, x-rays). Rates have a uniform markup over departmental costs across all services and for all payers, with a small discounts to Medicare, Medicaid, HMOs, and Blue Cross. Hospitals must charge and payers must pay the Commission-approved rates.

In an initial full rate review, the Commission staff evaluates the cost elements of each hospital for reasonableness compared to the average for its peer group, having adjusted for differences in labor costs, case mix, teaching, etc. If the hospital is not satisfied, it may ask for a public hearing. Once the Commission has ruled, it promulgates final rates.

The guaranteed inpatient revenue (GIR) system, which was introduced in 1976 for eight hospitals and now covers 50 of the 53 acute care hospitals in Maryland, caps payments for fixed costs based on an estimated volume of service for the following year. The Commission instituted a cap because the service-specific payment units gave hospitals a financial incentive to increase the volume of services: the more services they provided patients, the more revenue they received. However, the GIR allows for fluctuations in volumes of services. If the actual volume of services is less than the estimate, hospitals are guaranteed coverage for their fixed operating costs for the estimated volume. If the actual volume of services exceeds the estimate, hospitals receive only their variable costs associated with the additional cases.

The Maryland all-payer rate setting system has been in existence longer than any other state system. It has responded to changes in the health care sector by developing new methods to screen and update rates in response to organizational and technical change in health care delivery. In 1994, the Commission continued to explore experimental programs that may suggest innovations for the future. These include the use of bundled rates and capitated rate agreements between insurers and subsidiaries of hospitals, the use of risk pools for above-average hospital expenditures, the use of global budgets, and the development of hospital networks.

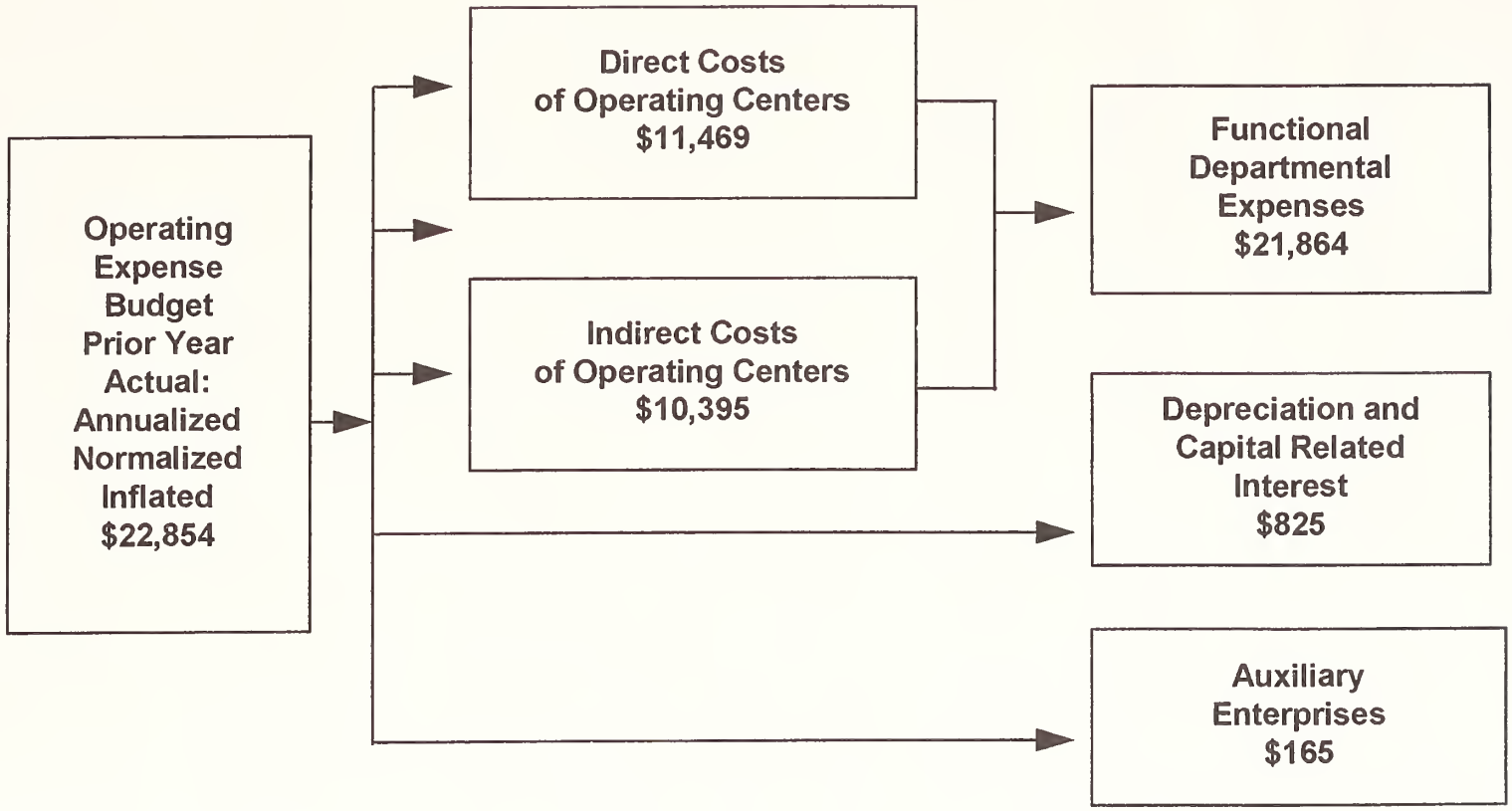
Throughout its existence, the Maryland Commission has stressed the importance of clear communication between the Commission staff and the hospitals during the rate review process. Because of this focus on explaining the system, and the numerous inquiries from state governments interested in the Maryland system, the Commission has developed a number of written manuals and descriptions of the system. The summary that follows relies heavily on these and other materials as well as interviews with Commission staff members.

5.2 ESTABLISHING THE RATE BASE

A hospital's requested rates are based on its operating budget as shown in Figure 5-1. This budget includes costs from a base period that are adjusted to represent a full year of costs inflated to the appropriate time period. Costs of new programs, new employees, or other additions during the year are also adjusted to reflect expected annual costs for the next fiscal year. Finally, the budget is adjusted for inflation that has occurred between the base year and the current year.

FIGURE 5-1

COST CATEGORIES OF MARYLAND HOSPITALS' OPERATING BUDGET REPORTS ($000)


Operating Expense Budget Prior Year Actual: Annualized Normalized Inflated $22,854
Direct Costs of Operating Centers $11,469
Indirect Costs of Operating Centers $10,395
Functional Departmental Expenses $21,864
Depreciation and Capital Related Interest $825
Auxiliary Enterprises $165

SOURCE: Adapted from "Guide to Rate Review in Maryland Hospitals, Vol. I" by the Maryland Hospital Education Institute

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In a complete rate review, Maryland hospitals must report their operating budgets for each revenue-producing center, divided into the four cost categories established by the Commission:

1. Functional departmental expenses: Direct costs of operating centers that provide patient care or treatment (for example, medical/surgical units, intensive care units, radiology departments).

2. Indirect costs of supporting the operating centers (such as housekeeping, management, and patient accounting).

3. Depreciation and capital-related interest costs. The allocated costs of depreciable fixed assets like buildings and equipment, plus incurred interest payments attributable to the hospital's building(s) and equipment, which may be directly reported by operating center in some cases.

4. Expenses of non-patient auxiliary enterprises and other institutional programs. Costs of revenue-producing activities not directly related to patient care (such as, television and telephone rental, vending machine operations, gift shops) and of other institutional programs (research or professional training programs).

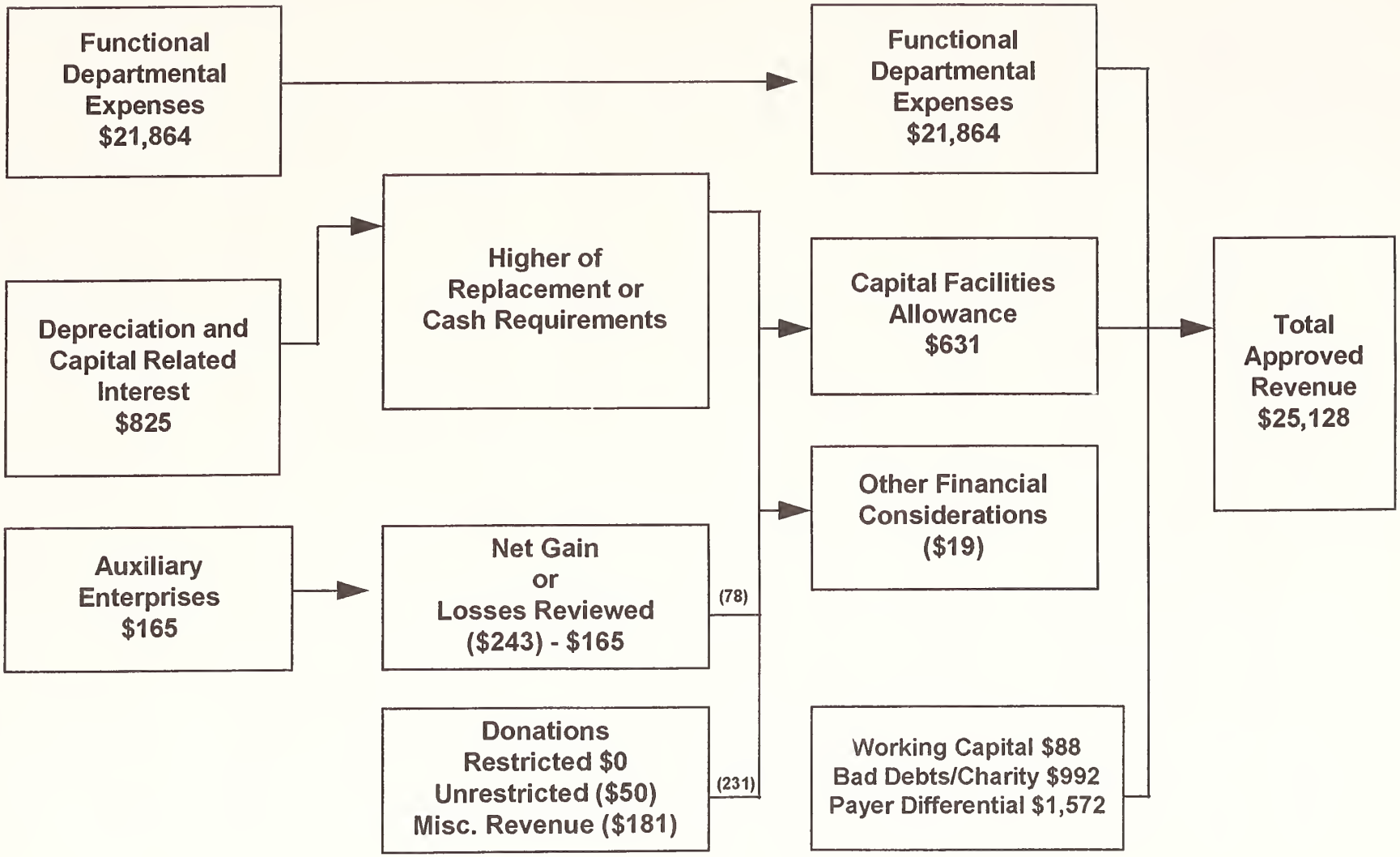
The rate setting process treats each of these categories differently. Direct costs of patient care, such as employee salaries and operating supplies, are included directly in the rate base and the final rates. The Commission requires that hospitals divide these centers according to function and allocate indirect costs to the revenue-producing centers on the basis of appropriate physical units, such as, pounds of laundry or square feet of floor to clean. Hospitals compute interest and depreciation expenses separately for buildings and for equipment. Proprietary hospitals are reimbursed for depreciation, but for other facilities this is set aside and a "capital facilities allowance," based on cash requirements, is included in the base rates. The calculation of this allowance is described below. The base rates also include the net gain or loss from non-patient auxiliary enterprises and other institutional programs. If the revenues of these programs exceed the costs, the net gain reduces the hospital's rate base. If the programs have a net loss, the amount can be added to the base rate.

The Commission ultimately approves each hospital's Total Approved Revenue (see Figure 5-2), which is the sum of (1) all functional departmental expenses, (2) the capital facilities allowance for capital related cash requirements, (3) other financial considerations, and (4) a markup to cover bad debt and charity care and to provide for working capital and cover discounts (lower conversion factors) for Medicare, Medicaid, Blue Cross, and several health maintenance organizations.

Functional departmental expenses comprise the only component included directly in Total Approved Revenue. The capital facilities allowance, for example, is calculated separately for buildings and equipment. For buildings, the Commission includes the higher of a replacement formula or the hospital's cash requirements. For equipment, the calculation requires three steps. This formula and the calculations for building funds are discussed in Section 5.7.

FIGURE 5-2

COMPONENTS OF MARYLAND'S TOTAL APPROVED REVENUE ($000)


Functional Departmental Expenses $21,864
Depreciation and Capital Related Interest $825
Auxiliary Enterprises $165
Higher of Replacement or Cash Requirements
Net Gain or Losses Reviewed ($243) - $165
Donations Restricted $0 Unrestricted ($50) Misc. Revenue ($181)
(78)
(231)
Functional Departmental Expenses $21,864
Capital Facilities Allowance $631
Other Financial Considerations ($19)
Working Capital $88 Bad Debts/Charity $992 Payer Differential $1,572
Total Approved Revenue $25,128

SOURCE: Adapted from "Guide to Rate Review in Maryland Hospitals, Vol. I" by the Maryland Hospital Education Institute

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FIGURE 5.3
COMPONENTS OF TOTAL REVENUE ($000)

Other non-patient financial considerations include three categories:

1. Cash requirements in excess of the equipment formula in the capital allowance formula, if they are justified by the hospital staff, for example, an expansion of services.

2. Net revenues of non-patient hospital programs (such as, the cafeteria) and unrestricted donations and foundation grants for operations or for community service.

3. Other excess cash requirements that are adequately justified, and net losses from other programs. Non-patient losses raise rates while unrestricted donations and positive net income from auxiliary enterprises can lower rates.

Donations for capital uses go into the capital budget and affect cash requirements. Donations for community service and other activities reduce the rates for those departments. For example, a foundation grant for operating some aspect of an outpatient clinic would result in a reduction of clinic rates.

The final component of Total Requested Revenues includes three markups. One is for working capital: a 2-percent prompt payment discount for any payer who pays upon discharge to finance cash flow, bad debts and charity care, and the payer differential. Another 4-percent discount for substantial available affordable coverage (SAAC) is extended to Blue Cross and qualifying HMOs because these payers reduce the state's level of uncompensated care by providing open enrollment and group conversion privileges. This SAAC discount is available to any insurer with these policies, but commercial insurers have not yet instituted them. And third, Medicare and Medicaid receive a 6-percent contractual discount for historical reasons. All of these discounts are financed through a global markup on the rate base that allows each hospital to still recover its allowable costs after discounts.

Each hospital's Total Approved Revenue is built up from department-specific budgets. First, the hospital's budget is allocated to as many as 50 revenue-producing centers (such as, radiology, ICU, pediatrics). When the Commission and the hospital have resolved any differences in accounting for costs, Commission staff calculate rates for standard units of volume in each department by dividing approved revenue by the corresponding standard volume unit. Different volume units are used for different departments, for example, a medical/surgical day, an operating room minute, a patient visit to the emergency room. Most ancillary services (such as, radiology or physical therapy) are measured by relative value units (RVUs), which represent a weighted workload measurement of the amount of resources required to do the various tasks. A standard chest X-ray would have fewer RVUs than a gastrointestinal series, for example.

Commission-approved unit rates are not always usable for billing, however, because they involve synthetic outputs that never appear on a patient's bill. Standardized rates, for example, are not set differently for private and semiprivate rooms, yet hospital administration may wish to charge more for a private room. Differential charges are acceptable as long as total revenue for the cost center does not exceed the total allowable revenue approved by the Commission. Problems can arise if the mix of individual services changes (for example, if proportionately more patients choose private rooms than in the past), and the hospital may find that its total revenues exceed the

approved amount. In this case, the hospital would have to lower its charges in the next rate period to remain in compliance. The Commission recognizes that hospitals cannot match approved revenues exactly, and has established corridors within which the revenues can vary beyond a dollar-for-dollar adjustment in the next year's rates. Larger variances lead to penalty rate reductions. To avoid these situations, hospitals have developed internal control mechanisms to identify variances that are developing and allow management to adjust the rates appropriately.

Once the Commission approves the hospital's total costs, they are realigned to the hospital's actual cost structure to ensure a uniform markup between costs and the actual charges the hospital sets for each unit of service, eliminating cross-subsidization between services within the facility. This realignment is needed for two reasons. First, patients vary in their service requirements. A normal delivery does not require the same intensity of care as an organ transplant, for example. If the markups over cost are allowed to vary by service, the maternity case might cross-subsidize the transplant operation (or vice versa). This situation could lead, in turn, to cross-subsidies from one payer group to another if certain types of patients are more prevalent in a particular payer group (for example, maternity cases covered by Medicaid).

A second reason for realigning unit rates is the fact that they are based on estimates of costs and volumes. The Commission staff expects that many variances between these estimates and actual unit costs will develop in the course of a year, reflecting changes in patient volumes, unusual costs, and a hospital's efforts to contain costs. Maintaining the alignment between costs and approved charges requires annual reports using a uniform reporting system. It also requires discussions with hospital staff.

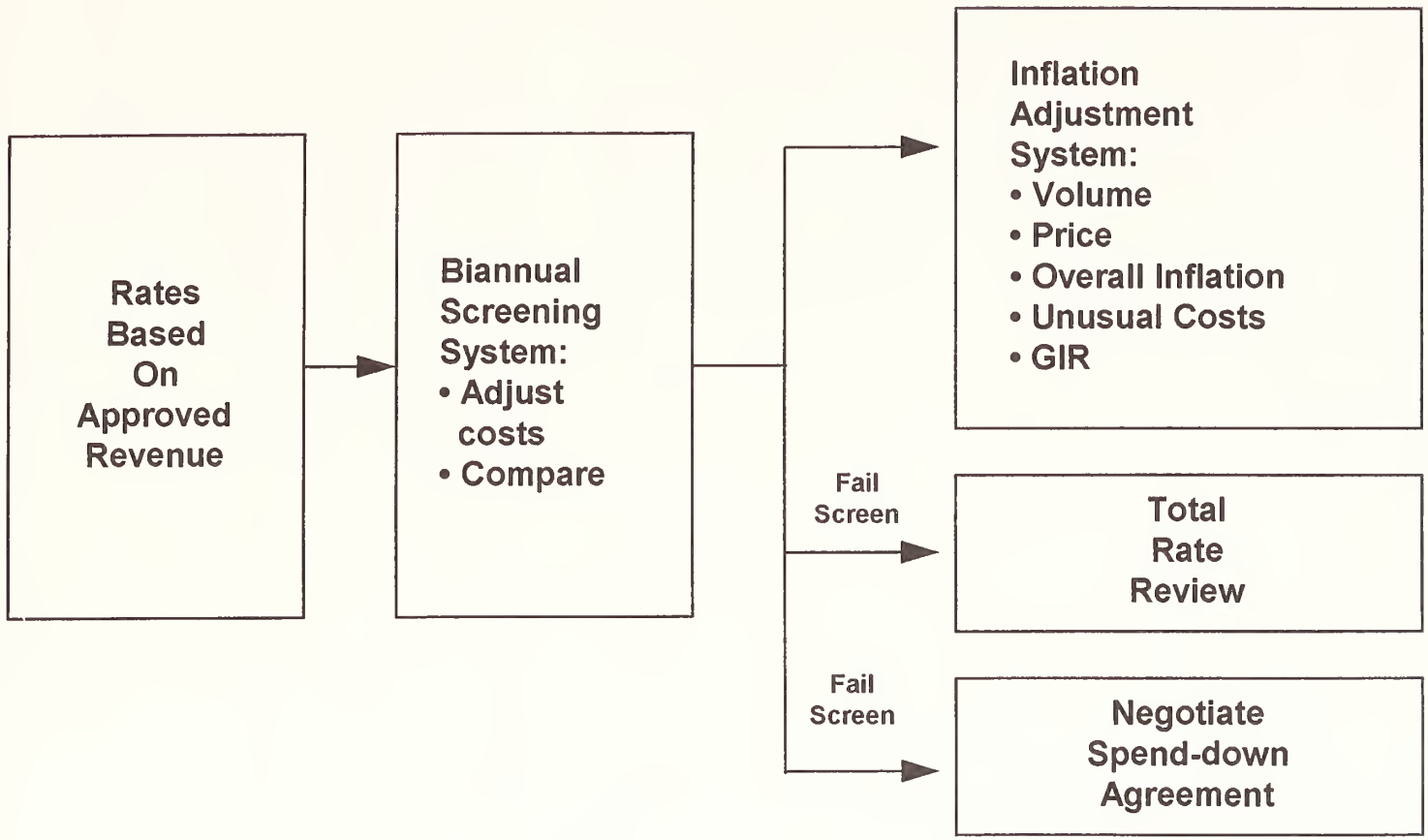
Figure 5-3 summarizes the sequence for applying the methods of the Maryland rate setting system. Twice a year, the rates are subject to the adjusted charges screening system. If they pass the screens, the inflation adjustment system, which includes calculation of the GIR, (guaranteed inpatient revenue) is applied. If the rates fail the screens, the hospital can ask for a full rate review, negotiate a spend-down agreement, or choose to do nothing.

5.3 THE SCREENING SYSTEM

Taking *each* hospital's own base year costs and deriving allowable charges from such costs, then applying a uniform inflation update for all providers, can inequitably result in winners and losers, depending on how efficient facilities were to begin with. Hence, the reason for the last major component of the Maryland rate setting system, its screening system, introduced in 1982. Each spring and fall, the Commission publishes a statewide comparison of hospitals' average charges per admission, having adjusted for cost factors that are either beyond management's control (such as, labor market differences, payments to hospital-based physicians and to CRNAs, and direct education expenses) or that the Commission chooses to finance (such as, predicted bad debt and charity care and the payer differentials listed above). Generally, hospitals whose average charges are considered too high

FIGURE 5-3

ALTERNATIVE STEPS IN CALCULATING MARYLAND HOSPITAL RATES



SOURCE: Adapted from "Guide to Rate Review in Maryland Hospitals, Vol. I" by the Maryland Hospital Education Institute

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are targeted for a focused rate review, while those whose charges are low compared to other hospitals are eligible for additional adjustments to their rates.

Between 1982 and 1986, the charge comparisons were made within three hospital peer groups, and the cutoff point was the group mean plus twice the inflation factor for the particular year. In 1986, the Commission eliminated peer groups and adopted a statewide comparison, with adjustments to each hospital's average charge per admission for indirect teaching costs and additional costs of treating low-income patients. The adjustments were based on regression coefficients similar to the approach used in the Medicare's Prospective Payment System.

In calculating the average charge per admission, the Commission excludes certain types of costs and adjusts the charges before it screens charges across hospitals. First, the Commission excludes 75 percent of direct medical education expenses (such as salaries for interns and residents), bad debt and charity expenses already in the rates, and the payer differentials for Medicare, Medicaid, Blue Cross, and HMOs. The second set of exclusions involves charges for hospital deaths, transfers, outliers, trauma, organ transplants, burns, neonates, or cases in any DRG dominated by a single hospital in the state. To control for other cost factors considered outside a hospital's control, the Maryland Commission next adjusts for the complexity of the hospital's case mix, wage levels, indirect teaching costs, and added costs of treating low-income patients (disproportionate share costs). The Commission staff calculates relative values for the case-mix adjustment using a DRG system similar to Medicare's but based on Maryland discharge data, excluding the type of cases listed above. The wage adjustment is based on a county-level wage index, adjusted for differences in the skill mix of each hospital's labor force (for instance, the mix of registered versus licensed practical nurses). The measurements are based on hospital wage data collected by the Commission for job classifications unique to health care (such as, nurses) and state data from all industries for other employees (such as, maintenance workers). The teaching and low-income adjustments are discussed in Section 5.8.

When the Commission finds that a hospital's adjusted charges are above the screen cutoff, the facility becomes ineligible for an inflation adjustment and is subject to a focused review of problem cost centers. In response, the hospital can file a rate application for a full review that will give it an opportunity to justify all of its costs to the Commission. If the hospital's application is successful, the Commission may approve rates that are higher than the screening limit would otherwise allow. Alternatively, a hospital that fails the screen can negotiate an agreement to spend down to an average below the cutoff over the course of several years. In effect, this spend-down agreement allows the hospital to postpone all or part of its adjustment for two to five years rather than incur the entire penalty in the next rate year.

5.4 THE UPDATE FACTOR

Every hospital in Maryland has undergone at least one full rate review of its detailed budget, but rates are usually adjusted annually through the simplified Inflation Adjustment System without full review. Inflation adjustments are calculated separately for (1) salaries and fringe benefits; (2) food, supplies, utilities, and other

expenses; and (3) capital. The three components are weighted according to their historical relationships for each hospital. Salaries and fringe benefits are the largest factor in the inflation of hospital costs, just as they comprise the largest share of each operating budget. Projected inflation rates are estimated to equal the most recent changes in the price indexes of the market baskets for labor and non-labor inputs. Another (minor) adjustment is made if actual inflation during the last rate period was greater or less than projected.

Hospitals are not required to accept a full inflation adjustment. They may take only a part of any increase and effectively bank the excess percentage points, to be added at a later date, in order to enhance their competitive market position and attract managed care insurers. Alternatively, if a hospital rejects its allowed update, it can immediately ask for a full cost review. This would be likely to occur if the hospital's cost structure changed appreciably, in which case a full review would reveal that the update factor would not bring charges in line with the facility's costs.

Commission staff analysts base annual adjustments to salaries and fringe benefits on changes in the average hourly earnings of hospital workers published by the U.S. Bureau of Labor Statistics for Metropolitan Statistical Areas or state rural areas. The supply component is adjusted by a composite index based on published indexes for 14 cost categories such as food, fuel and IV solutions. The producer price index, machinery and equipment, is used to adjust the equipment component of the capital allowance as a measure of replacement costs. The Commission has developed its own index for increases in the replacement costs of buildings and equipment.

Inflation adjustments are calculated assuming constant service volumes between the current and the budget year. Unexpected service growth during the rate year will generate more revenues than required because some costs are fixed. Commission analysts use three fixed-variable cost proportions. Future rates are then adjusted up or down to cover fixed costs that were underpaid or overpaid.

In addition, certain cost increases are passed through on top of the inflation adjustment. Pass-through costs are generally limited to the following:

- Increases in the Federal minimum wage that excced wage and salary allowances.
- Actuarially supported pension cost increases that exceed the allowed increase for inflation.
- Cost increases due to compliance with Commission mandates.
- Special purposes, such as asbestos removal, nurse education support, and wellness programs.

Changes in bad debts and nonoperating revenues are reviewed each year.

5.5 CONTROLLING THE INTENSITY OF SERVICES: THE GIR

To give hospitals an incentive to control the number of services produced per admission, the Commission caps each hospital's revenues under the guaranteed inpatient revenue (GIR) system. If a hospital exceeds the cap, it is penalized through a reduction in its rates for the next year. If the hospital's average revenue per admission is below the cap, the rates in the next year are increased and the additional revenue generated in the next year is discretionary income for the hospital. In effect, GIR guarantees payment for each case treated at a hospital at an average charge for each diagnosis for each type of payer.

The Commission staff computes the hospital's average revenue per admission in the base year, adjusts it for inflation to the current year using the Inflation Adjustment System, and compares it to the hospital's actual revenue per admission in the current year. The hospital's performance is always measured against the base year--not subsequent years--to hold the hospital to a meaningful standard. However, either the Commission or the hospital can suggest renegotiating the base year. To avoid penalizing hospitals for increases in the severity of their mix of cases (and prevent discrimination against the sickest patients), the Commission adjusts the GIR calculation to neutralize the effect of any change in case mix. It multiplies the number of current patients in each patient category (DRG) by the average revenue per admission for the base year, and then divides by the total number of patients in the current year. The difference between these case-mix-adjusted rates and the actual revenue per admission (multiplied by the number of patients) determines the reward or penalty.

Suppose that a hospital's base year is 1988 and average revenue per case in that year was $4,000. If the inflation adjustment to 1989 was 7 percent, the inflated GIR would be $4,280 per case. To the extent that the hospital keeps its average billed revenue in 1989 below $4,280 per case, the Commission will approve a new rate base equal to that amount times the number of admissions in 1989. Suppose that the actual revenue per case was $4,200 and there were 5,000 patients. The difference is $80 per case and the total adjustment would be $80 X 5,000 or $400,000. This amount is added to the rate base for the next year.

The GIR requires information on the mix of cases at each hospital. The Commission receives computer files of each hospital's discharge abstracts from which it calculates the DRG adjustment under the GIR. To defray these costs, the Commission approved a permanent increase in rates for hospitals ranging from $100,000 to $200,000. Under the GIR, hospitals also receive additional revenues to finance new programs and services. The amount is approximately 2 percent of the hospital's total patient revenues.

A different kind of GIR, called the total patient revenue (TPR) cap, is applied to rural and sole community hospitals. This cap protects these hospitals even more from financial insolvency due to perpetually low volumes. Their definition is based on their area market share, which is reviewed regularly.

5.6 COVERING NEW SERVICES

Because the Maryland system regulates charges for each hospital separately, when a hospital adds a new service (such as, open heart, lithotripsy), a new set of charges must be established for the service. The system has set aside a 1-3-percent annual allowance for new services in every hospital's rates statewide. In 1992, the actual adjustment was 2.65 percent. Each year, Commission staff compare the overall growth in hospital charges per case against the cost experience nationally to see what the state can afford in new services while still maintaining its Medicare waiver.

Hospitals approved by Certificate of Need to open a major service negotiate with Commission staff on how it will be financed. Often, rates are only partially adjusted upward, (say, in the operating room) through the inflation factor, with the expectation that the hospital would find the rest of the money from productivity gains, donations, etc. Approximately 25 new service applications are processed by the Commission each year, and the number has been increasing.

5.7 PAYMENTS FOR CAPITAL

The Maryland hospital system has a unique approach to paying for capital costs, borne out of a desire not to automatically pass through unneeded depreciation and high borrowing costs. With changing inpatient demand, many hospitals do not need to set aside depreciation allowances to replace their old buildings in full. Furthermore, some hospitals are poor borrowing risks, and the Commission did not want to automatically pay for their high interest rates when they borrowed.

To address these problems, the Commission first calculates what is called a capital facilities allowance separately for buildings and equipment. For buildings, the allowance is calculated using the higher of (1) a replacement formula that would provide 20 percent of the funds necessary to replace currently used facilities--not total licensed beds, or (2) the hospital's actual capital cash requirements, including principal and interest payments, rentals, leases, etc. The equipment allowance is based on actual capital cash requirements, or the sum of (1) straight-line, price-level depreciation of equipment in capital-intensive departments such as the operating room plus (2) a general allowance replacement formula in other departments.

In determining a hospital's building replacement allowance, a fund target is determined, debiting current fund balances already set aside, then prorating the difference by the remaining building accounting lifetime. If the target was $10 million and only two years remained on the building, then $5 million extra would be incorporated into the rates, versus just $500,000 if 20 years remained. The hospital's fund target is 20 percent of the hospital's bed target times the expected replacement cost per bed. Each hospital will have a bed target equal to the sum of (1) its own average number of occupied beds last year plus (2) an allowance of extra beds if it is located in a bed shortage area. In years where hospital capital cash requirements are high, it will not put anything towards its fund

target. Later in the life of a building when borrowing costs are lower, it will begin building up a 20-percent equity pool for replacement. Hospitals are expected to borrow the other 80 percent.

The Commission emphasizes several aspects of the capital facilities allowance. First, because the building fund target allowance is based on a hospital's own occupancy rate of staffed rather than licensed beds, the Commission places a premium on high utilization of facilities and discourages unnecessary expansion. Low-occupancy hospitals will not be able to generate even 20 percent of what would be required to replace their current facilities in terms of beds. Second, the allowance makes it easier for hospitals to replace old facilities, which usually have a small debt service, by using the replacement formula while the cash requirements option makes it possible for new facilities with large capital debts to finance them. Third, the fact that both the building and equipment allowances are based on price-level replacement costs is important. Otherwise, the allowances would be eaten away by inflation and not be adequate for a sufficient downpayment on new capital. Finally, the capital allowance does not include hospitals' other capital resources. That is, the allowance is in addition to the hospital's other dedicated capital fund raising.

5.8 COSTS OF TEACHING AND UNCOMPENSATED CARE

Maryland sets rates that are the allowable costs for each of its acute care hospitals. The costs of caring for low-income patients and for training interns and residents, therefore, are automatically included in these rates. The Commission subtracts them for its Screening System. A hospital's teaching activity is measured by the number of interns and residents per occupied bed. A regression equation is estimated to obtain the expected institutional cost for each additional intern or resident. The Commission staff then adjusts each hospital's costs per case for its teaching involvement, and screening thresholds are then applied uniformly across all hospitals.

The actual level of uncompensated care included in rates is based upon a regression analysis that includes the percentage of patient days covered by Medicaid and the percentage of non-Medicare patient days that result from an emergency room admission. Uncompensated hospital care in Maryland increased from $36 million in 1977 to $394 million in fiscal 1992. State budgetary problems led to reductions in or elimination of state-funded medical assistance programs. This required the Commission to increase hospital rates above its expectations and has increased the disparity in rates across hospitals, regions, and payers because uncompensated care is concentrated in particular hospitals. These changes point out the trade-offs between broader Medicaid (and other program) coverage and the level of uncompensated care that exist for all states.

One problem with folding uncompensated care into rates is that some hospitals have charge profiles far above the rates approved and charged by their competitors. HMOs and PPOs respond to price differentials by redirecting patients to lower-cost facilities in order to reduce their own costs per covered life. Disproportionate share hospitals, in turn, fail to cover all of their uncompensated care and their rates must be increased even more. The Commission continues to wrestle with this and other problems raised by the introduction of managed care into an all-payer regulated state.

5.9 MANAGED CARE UNDER THE MARYLAND HOSPITAL RATE SETTING SYSTEM

In general, managed care organizations can achieve lower inpatient expenditures per enrollee by the following means:

- Keeping patients out of the hospital by substituting outpatient care for inpatient care or eliminating unnecessary admissions.
- Managing the inpatient care for their enrollees to reduce the intensity of services delivered.
- Negotiating favorable discounts from hospitals in return for preferred provider status.
- Redirecting patients to hospitals with lower charges, even without discounts.
- Enrolling a younger, healthier population that requires less hospitalization than people insured through other insurance plans.

The Maryland hospital rate setting system makes all but the third of these cost-saving activities available to managed care organizations operating in that state. In doing so, the Maryland approach offers several possible advantages to other states trying to constrain health care costs using managed care--at least in part. These advantages are due to the greater flexibility Maryland allows insurers, especially managed care plans, in managing hospital utilization at the service level.

From a policymaker's point of view, a major advantage of the Maryland system is that it includes all payers under a uniform rate setting methodology. Including all payers prevents managed care plans from negotiating separate discounts that shift a disproportionate share of all hospital costs to other payers.

A second advantage in the Maryland rate setting approach is the use of per-service rates. Insurance plans that curtail inappropriate or unnecessary ancillary services or inpatient days of care reap an immediate reward by paying lower total charges for the care of their enrolled populations.

Third, Maryland rewards all insurers for prompt payment and for taking actions (such as open enrollment and group conversion privileges) that increase health insurance coverage in the state and reduce the burden of uncompensated hospital costs due to lack of insurance. These policies are followed by many managed care plans and the discounts from the uniform all-payer rates can reinforce their competitive position by contributing to lower premiums.

Finally, the Maryland system is based on uniform hospital data sets collected from all hospitals on all discharges. The detail available in these computer files benefits managed care organizations in calculating differences in utilization and expenditures for populations across the state.

Some of the problems with which the Commission continues to wrestle include the financial consequences from (1) redirecting patients to lower cost hospitals, (2) redirecting outpatients to nonhospital sites for ancillary services, and (3) enforcing the all-payer aspect of rate setting when hospitals and managed care plans alike would like to negotiate separate discounts. The first of these problems arises from the fact that charges in Maryland are hospital specific. The costs of teaching and providing care to low-income patients fall disproportionately on a few hospitals within the state, and these hospitals have higher charges than nearby competitors. If managed care organizations redirect a large number of their enrollees to lower cost competitors, teaching hospitals may lose significant volumes of patients and, despite the GIR, suffer financially. One possible solution to this problem would be to spread the costs of teaching and low-income patients across all or most hospitals in the state through statewide pools.

The second problem is due to the practice of setting a uniform ancillary charge for both inpatients and outpatients receiving a given test or procedure. That is, an outpatient x-ray is billed the same as an inpatient x-ray. This encourages insurers to use nonhospital sites for many of these procedures. In part as a response to this practice, Maryland is exploring approaches to regulating rates for physician services in alternative settings.

Finally, the Commission is sensitive to the possibilities that a hospital and insurer might negotiate a separate (unauthorized) discount. The fact that such discounts form a major strategy for managed care organizations in other states adds to the organizations' interest in pursuing discounts in Maryland. Maryland hospitals with significant numbers of excess beds are also interested in negotiating discounts in return for larger volumes of patients insured by the managed care organizations. To date, these have not been allowed.

5.10 ADMINISTRATION

The Maryland Health Services Cost Review Commission (HSCRC) is made up of seven part-time Commissioners who are appointed by the Governor to serve staggered four-year terms. By law, no more than three of the Commissioners may be associated with or represent the hospital industry. The Commission's budget, which is funded through hospital user fees, was $2.1 million (to regulate a $4 billion industry) for fiscal year 1993. This represents about half of 1 percent of industry revenues.

The Commission employs a staff of 28-30 full-time equivalent workers, headed by an executive director. In addition, the Commission has a contract with an outside data processing vendor (for about $120,000) to prepare the submissions of financial and discharge data from the hospitals for use by the Commission staff.

The staff is organized into three functional groups: auditing (six people), rate analysis and research (ten people, including two attorneys and their secretary), and data processing (seven people). The auditors receive and examine the hospitals' annual financial cost reports. The cycle for submission is 45 days before the facility's anniversary date.

With input from the hospital's staff, the auditors and analysts reconcile hospital cost reports with state data, review information on new products for which rates must be calculated, carry out rate reviews, and prepare

arguments for any presentations to the Commissioners. These tasks are time consuming, and staff tend to work only with five to ten facilities (depending on their size and complexity) in the course of a year. The analysts generally have bachelor's degrees or some other background in accounting, but no special training in hospital rate setting. Their training at the Commission consists basically of working on progressively more complicated rate reviews. The turnover of people in this group is steady.

The data processing department receives the hospitals' discharge or case-mix data and their financial reports. The financial data base includes four types of reports for each hospital:

- Monthly revenue, statistics, and compliance reports.
- Quarterly financial statement summary reports and unaudited financial statements.
- Annual wage and salary survey information.
- Annual hospital rate review reports.

The data processing staff prepare the necessary information for reconciling the reports over time and for comparing costs across facilities in the screening process. They conduct the regression estimations, make the adjustments to the costs per case, and rank the hospitals by cost for the analysts' use.

Hospitals also submit medical records abstracts on a quarterly basis. After the outside vendor has processed the data files, the Commission's data processing staff edit and clean the data and generate a large number of reports for staff use. These include comparisons across facilities of lengths of stay and occupancy rates, costs by cost center, physician costs and services, equipment, revenues, uncompensated care, and disposition of patients.

During the rate review process, if the Commission staff think that the hospital has failed to justify its costs, it will recommend an investigation and the Commissioners may call a public hearing. At this hearing, the hospital has the opportunity to defend its costs publicly and to challenge the assumptions and criteria of the Commission. Both sides may call expert witnesses. Hospitals that receive unfavorable Commission decisions may appeal through the Maryland Courts. There is no administrative appeal. In the past nine years, the Maryland Health Services Cost Review Commission has conducted only one contested case hearing. Since that case in 1984, rate reviews have been settled by mutual agreement before going to a hearing.

6.0 HOSPITAL RATE SETTING USING DRGs IN NEW YORK

6.1 OVERVIEW OF THE SYSTEM

New York State has operated a prospective reimbursement program since January 1, 1970. Until 1977, however, the program covered only Medicaid and Blue Cross patients. Thorpe (1987) traces the origins of the New York Prospective Hospital Reimbursement Methodology (NYPHRM) for all payers to the New York City budget crisis of the mid-1970s. Two measures undertaken at that time contributed to fiscal difficulties for acute care hospitals by the end of the decade. First, income levels to determine Medicaid eligibility were not updated, leading to reduced Medicaid outlays but increased bad debt and charity care for hospitals. Second, the state's prospective rate setting system for Medicaid became more restrictive (decreasing Blue Cross payments to hospitals as well), which contributed to the financial pressures on acute care facilities. Operating losses, especially for New York City hospitals, increased and a number of institutions threatened bankruptcy.

Hospitals cross-subsidized charity care and Medicaid and Blue Cross payments by increasing charges to commercially insured patients. Commercial rates were twice as high as Medicaid rates in some areas of the state. Many commercial payers refused to write new health insurance policies in New York. To address these problems, in 1978, the State created a Council on Health Care Financing, which developed a new financing system for the general hospitals in the state. This system established rules that covered all hospital revenue sources (requiring a waiver from the Medicare program).

At first, NYPHRM established regulated hospital per-diem rates for all health care payers. In 1982, the Federal Health Care Financing Administration (HCFA) granted a waiver for NYPHRM, with the condition that the state would repay HCFA for any amounts by which the rate of increase in Medicare spending in the state exceeded the national average rate for Medicare over the next three years. From 1983 through 1985, NYPHRM set per-diem rates for hospital payments by Medicare, Medicaid, and Blue Cross. Commercial insurers paid charges with a cap based on the Blue Cross rate. In 1986, New York's waiver from the Prospective Payment System (PPS) ended. For the next two years, Medicare paid for acute inpatient care on the basis of Diagnosis Related Groups (DRGs). Since January 1, 1988, the State has set DRG-based rates for non-Medicare inpatients as well.

NYPHRM's per-case payment is similar to that of Medicare's Prospective Payment System (PPS) in that the payment for an inpatient stay depends on the diagnostic classification of the case. The payment has four basic components: a base rate, a relative value scale, extra payments for cost factors not included in the base rate, and an update factor over time. These components can be related arithmetically:

$$\text{Payment for DRG} = \{[\text{base rate} \times \text{relative value scale}] + \text{extra pay}\} \times \text{update}$$

NYPHRM bases payment rates on operating costs and utilization data captured in a state-wide computerized database. State analysts calculate the amounts separately for nonexempt and exempt hospitals and units. Designated AIDS, alcohol and drug rehabilitation, and seizure units, as well as hospitals or hospital units that are exempt from Medicare's PPS are exempt from NYPHRM's case payment system and continue to be paid on a per-diem basis.

NYPHRM bases the hospital-specific, non-Medicare rates for nonexempt facilities on historic costs, adjusted for case mix, volume, and inflation since the base year. The direct costs of medical education and other costs considered to be noncomparable across hospitals are passed through with these same adjustments. The rates for acute and alternative levels of care are specific to each hospital and blend the facility's historical costs with the adjusted average cost for the facility's peer group. These peer groups are based on similarity of costs, accounting for geographic location (New York City or upstate), teaching status, bed size, and the average severity of the cases admitted at each facility.

The blended, hospital-specific payments have seven components: (1) a DRG payment per discharge, (2) a capital cost component, (3) a bad debt and charity care (BDCC) allowance, (4) a component to cover medical education costs, (5) an outlier or transfer payment, if appropriate, (6) a payment for excess physician malpractice, and (7) a conversion factor. The conversion factors differ for the various payers. For example, Blue Cross rates are 13 percent lower than the rates of commercial insurance carriers and Worker's Compensation. HMOs can negotiate their own rate levels subject to the approval of the Commissioner of Health, but state officials report that the HMOs have not pursued this option until the last year when hospitals, facing low occupancy rates, have begun negotiating discounts. Costs for exempt facilities and units are similarly adjusted, but their totals are divided by the numbers of inpatient days to arrive at per diems.

The rest of this chapter describes the components of this rate setting system in greater detail. Section 6.2 summarizes the calculations for the standardized amount or base rate for each facility, including the derivations of the two components of the formula. Section 6.3 reviews the methodology for the relative value scale of New York's DRGs and discusses the payer discounts or differentials. Sections 6.4 and 6.5 focus on the inflation adjustments and capital payments, respectively. Sections 6.6 and 6.7 summarize payments for the bad debt and charity care pools and for outliers, transfer cases, and rates for alternative levels of care. Payment for exempt facilities and units is the subject of Section 6.8, while Section 6.9 summarizes the role of HMOs in the New York system and 6.10 deals with program administration.

6.2 THE BASE RATE

The base rate for DRG payments under NYPHRM blends a hospital-specific average operating cost per discharge with an average operating cost for each hospital's peer group. Both of the costs are based on measures of costs from 1981 that have been rolled forward to the present. The two averages are weighted and combined as follows:

Base rate = { a1(hospital average cost/case) + a2(peer group average cost/case) }

where a1 and a2 are weighting factors that can vary between zero and one. This approach is similar to Medicare's blend of hospital-specific, regional, and national rates during its transition to the full prospective payment system, in that the blended base rate partially protects each facility's average revenue while giving it an incentive to change. Regulators can set the weights to increase or reduce the incentive for change.

Weighting the base rate toward a peer average (e.g., setting a2 between 0.5 and 1.0) gives administrators of high-cost hospitals a financial incentive to bring average costs more in line with an industry standard. Including the hospital-specific amount implicitly adjusts the payments for cost factors that are specific to that facility (such as its degree of unmeasured severity within DRGs). Facilities with average costs above those for their peer groups are protected financially to some degree by including the hospital-specific amount. Including it gives facilities with below-average costs less of a windfall gain than they would receive if the rates were based entirely on group averages.

The proportions of hospital-specific costs and group average prices in NYPHRM's blended base rate have changed over time. The State Agency has argued for having the base rate be 100-percent peer group price while the hospital industry has argued for increasing the hospital-specific component. The state statute set a2 at 0.1 in 1988, but increased it to 0.25 for the 1989 rate period and to 0.55 for 1990 and beyond, favoring the state position on basing rates more on a group average price. The state Fiscal Policy Committee was concerned in 1987 that this blended approach would lead hospitals to restrict resource consumption to the detriment of quality of care. New York addressed this issue by promulgating a detailed set of quality assurance regulations.

NYPHRM calculates both parts of the base rate from cost and discharge information that the hospitals must report to the state. Specifically, the state reconciles information from each hospital's Institutional Cost Report with claims data from New York's Statewide Planning and Research Cooperative System (SPARCS) or the provider Statistical and Reimbursement Report to determine different types of costs, case mix, and volumes of discharges and inpatient days for each hospital. It then adjusts the base year for inflation, changes in case mix and volumes, and various legislative mandates.

6.2.1 Calculating the Hospital-Specific Component

To calculate hospital-specific non-Medicare reimbursable operating costs, state analysts subtract the following types of costs from the adjusted base operating costs because these costs are reimbursed outside the case-based system:

- The proportion of settled costs accounted for by Medicare patients.
- Exempt unit costs.

- Alternative levels of care.
- Transfer cases.
- Short-stay outliers.
- High-cost outliers.

The hospital-specific operating costs that are left after the subtractions include indirect costs associated with the facility's graduate medical education program and the direct costs of the hospital's medical malpractice insurance; ambulance services; organ acquisition; schools of nursing, radiology, and/or laboratory technology; and hospital-based physicians. NYPHRM then adds costs to the base year to compensate for a variety of costs, including: health training programs, legislatively mandated workforce demonstrations, and transition costs including unspecified technology advances since the base year, increased quality assurance activity and patient discharge planning, and increases in malpractice insurance costs, infectious and other waste disposal costs, water charges, direct medical education expenses, working capital, and the interest costs of certain hospitals. The amount that results from these arithmetic calculations is the estimate of reimbursable inpatient operating costs attributable to non-Medicare discharges.

To calculate the hospital-specific base rate, analysts first divide this estimate by the number of non-Medicare discharges, then divide the resulting average cost per discharge by the hospital-specific case-mix index to get case-mix neutral cost per non-Medicare discharge. NYPHRM bases the case-mix index on discharges from nonexempt units of the facility, excluding discharges associated with short-stay patients, exempt units, and transfers. The index for a given hospital is calculated by weighting each case by the DRG-appropriate severity intensity weight and dividing the sum of these weighted cases by the number of non-Medicare discharges from the hospital. This amount is not adjusted for geographic differences in labor or power costs because the hospital-specific component implicitly accounts for these differences.

6.2.2 Calculating the Group Price Component

The other part of the blended base rate, the group price, is calculated for each of eight mutually exclusive peer groups to which NYPHRM hierarchically assigns non-exempt hospitals:

(1) Academic medical centers.

(2) Major public hospitals (defined as all general hospitals operated by the new York City Health and Hospitals Corporation and all other public general hospital having annual base year inpatient operating costs over $25 million, excluding major public hospitals that are academic medical centers).

(3) Metropolitan New York teaching hospitals.

(4) All other metropolitan New York hospitals.

(5) All other teaching hospitals.

(6) All other hospitals with fewer than 100 certified beds.

(7) All other hospitals with 100 to 300 certified beds.

(8) All other hospitals with more than 300 certified beds.

By definition, peer groups (5) through (8) are located upstate.

NYPHRM developed these peer groups for setting the per-diem rates used before 1988. The use of average costs within these groups limits the financial risk for any one hospital. The upstate hospitals are located throughout the state, however, and face very different markets for inputs to health care services. NYPHRM recognizes and adjusts for differences in prices for the labor and power inputs through equalization factors.

The wage equalization factor (WEF) accounts for differences in the price of labor among hospitals or groups of hospitals. It adjusts for the wage and fringe benefit costs for each hospital relative to its peer group. The WEF is based on staffing levels for specific categories of workers: nursing aides, orderlies and attendants, licensed practical nurses, registered nurses, non-supervisory, including head nurses, patient food service workers, X-ray technicians, laboratory technologists and technicians, housekeeping aides, attendants, and porters. Staff physicians are excluded. The adjustment is applied to the hospital's proportion of total operating costs that are salaries and fringe benefits.

The power equalization factor (PEF) accounts for differences in the cost of electricity and gas across hospitals and groups of hospitals. It is basically an index of the average price of power for each facility compared to a statewide average. It is applied to the proportion of total costs accounted for by these inputs.

Before grouping hospitals into peer groups, New York also adjusts each hospital's rate for the indirect costs of teaching programs. The hospital-specific indirect teaching adjustment is the adjusted cost multiplied by: $2[((1+r)^{.465})-1]$ where r equals the facility's ratio of residents and fellows per bed. This amount and the costs of outlier cases are subtracted from the adjusted hospital costs. Outlier costs are reimbursed through an indirect teaching add-on to the case-based payment rate.

The direct costs of medical education are included in the group average price as an average cost per unit. The base year costs are trended forward and allocated across the operating units of the hospital. These costs are then divided by the appropriate unit of service (for a case-based inpatient payment system this would be a discharge) and added to the group average price.

New York excludes the costs of alternative level of care services (ALC) which are usually, but not necessarily, medically needed post-hospital services provided by a hospital because they are not otherwise available to that patient or because there is no place to which the patient can be discharged. An example would be a patient who could be discharged to a nursing home if a bed were available. Because these services are paid for separately,

the costs are not included in the base rate. They are a very low proportion (3 percent or less) of hospital inpatient costs.

The next step in calculating the group price is to divide the adjusted costs by the number of non-Medicare inlier discharges and the case-mix index, and to average this adjusted cost per discharge across the hospitals in the group. NYPHRM then calculates the overall base rate for each hospital by weighting the hospital-specific and group price rates by the weighting factors a1 and a2, and adding the amounts.

6.2.3 Payer Differentials

6.2.3.1 Individual. Since 1988, NYPHRM has established the case-based payment rates per discharge paid for inpatient hospital services to patients covered by any of the following:

- Commercial insurers.
- Self-insured funds.
- Blue Cross.
- HMOs.
- Medicaid.
- Worker's compensation.
- The volunteer firefighter's benefit law.
- The motor vehicle insurance reparations.

The exceptions are health maintenance organizations, or other insurers that have negotiated separate rates approved by the Commissioner of Health, and self-pay patients.

Regulated payers do not all pay the same amount to a given hospital for a given DRG. There are a number of ways in which the rates for a facility vary from one payer to another.

1. NYPHRM allows a 2-percent discount for payers that make payment in full to a hospital within 10 calendar days of receipt of the hospital's bill.
2. Malpractice costs added into the base rate vary by payer experience in each hospital.
3. The base rates for commercial insurers and self-pay patients are often higher than those for government payers.
4. HMOs can negotiate separate payment methodologies with any hospital.

The prompt payment differential is justified by the improved cash flow that this payment practice gives the hospital. The other reasons for payer differentials are discussed below.

6.2.3.2 Malpractice Costs. The full costs of hospital malpractice insurance premiums and self-insurance contributions are directly apportioned among payers on the basis of their share of total reimbursable costs and each facility's malpractice losses. Specifically, NYPHRM allocates 8.5 percent of the malpractice costs to non-Medicare payers based on the ratio of each payer's inpatient reimbursable cost to total non-Medicare inpatient reimbursable costs. The remaining 91.5 percent of medical malpractice costs are then apportioned on the basis of the each payer's share of the facility's malpractice losses for inpatients during 1980-84. The proportion is the same as that for the Medicare PPS. If a facility had no malpractice losses for that period, the costs for the coming year are based on the statewide ratio of malpractice awards.

6.2.3.3 Different Conversion Factors. By law, commercial insurers pay 13 percent more per case than Medicaid and Blue Cross. NYPHRM includes Blue Cross in the lower rate because the company agreed to an open enrollment policy, makes an interim payment to hospitals to improve their cash flow while claims are being processed, and engages in less experience rating than commercial insurers. Granting it a lower conversion rate makes it more competitive with the commercial insurers, given these practices. In addition, Blue Cross engages in no other business activities, which could lead to cyclical financial problems if they could not maintain their competitive position.

Self-pay patients cannot be charged more than 120 percent of NYPHRM's case-based payment per discharge for a given hospital. In creating NYPHRM, the New York State Assembly agreed that there should be a cap on the system overall and set the highest charges at 35 percent above Blue Cross and Medicaid (which is equivalent to 20 percent above commercial insurers).

6.2.3.4 HMO Negotiated Rates. New York has always allowed health maintenance organizations, but not preferred provider organizations, to negotiate their own payment rate methodologies with individual hospitals or groups of hospitals with the approval of the Health Department. The distinction is made on the basis of state licensing: HMOs are licensed entities, PPOs are insurers' products. Rate approval requires that an HMO demonstrate lower hospital costs (for example, from lower lengths of stay), and negotiate a rate schedule that approximates those costs. Thus, the HMOs should be paying hospitals their full costs.

Before 1988, reimbursement on a per-diem basis encouraged hospitals to maintain long lengths of stay, and hospital occupancy rates were very high. With few empty beds, hospitals could avoid negotiating with HMOs. Since the implementation of DRGs, hospital occupancy rates have declined along with average lengths of stay and HMOs are more able to negotiate favorable rates in exchange for guarantees of patient volumes. Consequently, the Health Department is reviewing more negotiated rates. Many HMOs use a front-loaded per-diem rate methodology, in which the rate for the first few days of an inpatient stay is higher than that for later days. In this

way, the HMO rate structure reimburses for the costs of the diagnostic and treatment procedures that tend to be performed at the beginning of a hospital stay.

6.2.4 How Closures Affect Facilities' Base Rates

To close, hospitals must present a plan to the Commissioner of Health and receive approval. When a hospital closes, the base rates of nearby hospitals can rise in the short term as their patient loads increase from the closure. Under the special Hospital Closure Incentive Program, a group of hospitals can submit a plan to the Commissioner to close a facility and redistribute the patient load. The Health Department then recalculates the hospital-specific average cost per discharge for the remaining hospitals in the group. The recalculation adds the variable costs associated with the closed facility or facilities to the operating costs (and therefore the rates) of the remaining facilities to ensure that the increased volumes will generate sufficient reimbursement. This permits the remaining hospitals in the group to absorb the employees of the hospital that closes. Over time, however, the staffing of the remaining hospitals must return to appropriate levels, and the Commissioner has the authority to require a strict attrition program to achieve this goal.

6.3 THE DRG RELATIVE VALUE SCALE

New York's prospective hospital reimbursement methodology classifies inpatient discharges into diagnosis related groups (DRGs) and sets differences in the service intensity weights according to the general methods outlined in Chapter 2. The weight for any given DRG indicates the average cost of patients in that DRG relative to the average cost of all patients in all DRGs. A number of costs are excluded from the calculations of the service intensity weights because these costs are reimbursed separately. They are costs associated with Medicare patients (whether paid by Medicare or a secondary payer), alternative level of care patients, exempt units, hospital medical malpractice insurance, transferred patients not specifically identified as transfer DRGs, graduate medical education, and the costs of the outlier portion of any length of stay.

New York uses more than 500 DRGs. These groups are based on the roughly 470 DRGs in Medicare's classification system. However, NYPHRM has added 35 classifications for neonates (DRGs 600 to 634, listed in Table 6-1) and 15 categories for HIV-related conditions (DRGs 700 to 714, listed in Table 6-2). NYPHRM has also deleted about ten Medicare categories that were no longer valid, given the additional categories for neonates and HIV-related conditions.

Patients are assigned to the appropriate DRG for payment purposes based on factors such as the medical diagnosis, sex, age, birthweight, and procedures performed and reported in claims submitted by the hospital to the payer. The service intensity weights range from a low of less than 0.20 for false labor to a high of over 35 for a heart transplant. This means that a hospital performing both types of service would receive over 175 times more in payment for the heart transplant than for the false labor.

TABLE 6-1

NYPHRM'S ADDITIONAL DRG'S FOR NEONATES

DRG Code	DRG Description
600	Neonate, Died w/in 1 day of birth
601	Neonate, transferred <=4 days old
602	Neonate, Birthwt. <750G, discharged alive
603	Neonate, Birthwt. <750G, died
604	Neonate, Birthwt. 750-999G, discharged alive
605	Neonate, Birthwt. 750-999, died
606	Neonate, Birthwt. 1000-1499G, W/OR proc, discharged alive
607	Neonate, Birthwt. 1000-1499G, W/O OR proc, discharged alive
608	Neonate, Birthwt. 100-1499G, died
609	Neonate, Birthwt. 1500-1999G, W/OR proc, w multi major prob
610	Neonate, Birthwt. 1500-1999G, W/OR proc, w/o multi major prob
611	Neonate, Birthwt. 1500-1999G, W/o OR proc, w multi major prob
612	Neonate, Birthwt. 1500-1999G, W/o OR proc, w major prob
613	Neonate, Birthwt. 1500-1999G, W/o OR proc, w minor prob
614	Neonate, Birthwt. 1500-1999G, W/o OR proc, w other prob
615	Neonate, Birthwt. 2000-2499G, W/OR proc, w multi major prob
616	Neonate, Birthwt. 2000-2499G, W/OR proc, w/o multi major prob
617	Neonate, Birthwt. 2000-2499G, W/o OR proc, w multi major prob
618	Neonate, Birthwt. 2000-2499G, W/o OR proc, w major prob
619	Neonate, Birthwt. 2000-2499G, W/o OR proc, w minor prob
620	Neonate, Birthwt. 2000-2499G, With only normal newborn diag.
621	Neonate, Birthwt. 2000-2499G, W/o OR proc, w other prob
622	Neonate, Birthwt. >2499G, W/OR proc, w multi major prob
623	Neonate, Birthwt. >2499G, W/OR proc, w/o multi major prob
624	Neonate, Birthwt. >2499G, W minor abdom proc, w multi maj prob
625	Neonate, Birthwt. >2499G, W minor abdom proc, w/o maj prob
626	Neonate, Birthwt. >2499G, W/o OR proc, w multi major prob
627	Neonate, Birthwt. >2499G, w/o proc, w major prob
628	Neonate, Birthwt. >2499G, W/o proc, w minor prob
629	Neonate, Birthwt. >2499G, with only normal newborn diagnosis
630	Neonate, Birthwt. >2499G, w/o OR proc, w other prob
631	BPO and other chron resp diseases arising perinatal period
632	Other respiratory problems after birth
633	Multiple, other and unspec congenital anomalies, w cc
634	Multiple, other and unspec congenital anomalies, w/o cc

TABLE 6-2

NYPHRM'S ADDITIONAL DRG'S FOR AIDS DISCHARGES

DRG Code	DRG Description
700	HIV Related CNS disease, age < 13
701	HIV Related CNS disease, w/ opioid use, age > 12
702	HIV Related CNS disease, w/o opioid use, age > 12
703	HIV Related malignancy, age < 13
704	HIV Related malignancy, w/ opioid use, age > 12
705	HIV Related malignancy, w/o opioid use, age > 12
706	HIV Related infection, age < 13
707	HIV Related infection, w/ opioid use, age > 12
708	HIV Related infection, w/o opioid use, age > 12
709	HIV Related other condition, age < 13
710	HIV Related other condition, w/ opioid use, age > 12
711	HIV Related other condition, w/o opioid use, age > 12
712	HIV w/o spec related manifestation, age < 13
713	HIV w/o spec related manifestation, w/ opioid use, age > 12
714	HIV w/o spec related manifestation w/o opioid use, age > 12

6.4 THE UPDATE FACTOR

NYPHRM relies on a panel of four independent consultants to establish the inflation or trend factor each year. These consultants have expertise in health economics and are appointed by the Commissioner of Health. This arrangement was requested by the industry and agreed to by the regulators. It preserves an arm's length relationship between the state agency and the setting of the update factor. The panel's meetings are public.

The methodology employs appropriate price indicators external to the New York hospital industry. It also uses data from major collective bargaining agreements as reported quarterly by the federal Department of Labor, Bureau of Labor Statistics, for non-supervisory employees to calculate increases in labor-related cost factors.

The Commissioner implements a prospective annual adjustment to the trend factors based on recommendations of the panel to be effective on January 1. The adjustment reflects the price movements in the labor and non-labor components of the trend factor. If the final non-labor component differs from the prospective non-labor adjustment by an amount that would make a difference of more than 0.5 percent in the previously determined rate, then a retroactive rate adjustment reflecting the change is made on July 1 of the following year. The prospective adjustment made on January 1 then reflects only the adjustment to the labor component.

6.5 CAPITAL

NYPHRM reimburses hospitals for capital expenses on a pass-through basis for Certificate-of-Need (CON) approved projects and equipment. The allowable costs of fixed capital include but are not limited to depreciation or amortization, rentals, interest on capital debt, and other approved expenses associated with both fixed capital and major movable equipment. Reimbursements for these costs are based on budgets that are submitted to the Commissioner at least 120 days prior to the beginning of the rate year. The budget information is reconciled to total actual expense after the fact. If a hospital's capital budget exceeds its spending for three years, the Commissioner uses cost report data to calculate new rates that bring payments in line with costs.

The basis for determining capital-related inpatient reimbursements is the lesser of actual cost or the final amount approved for construction by the appropriate regulatory agency. Budgeted capital costs are allocated to exempt and non-exempt units and to Medicare and non-Medicare inpatient days on the basis of historical costs on a per-day or per-discharge basis. The capital payment rates are then added to the base rates.

6.6 BAD DEBT AND CHARITY CARE

NYPHRM has continued the regional bad debt and charity care (BDCC) pools that were developed for pre-1988 reimbursement. Distribution of these funds, on a facility-specific basis, is based on a progressive formula, with more funds provided to those hospitals with greater need.

The BDCC pools are funded by assessments on hospital rates and charges paid by all payers other than Medicare fund the BDCC pools. This regulation raises not only the NYPHRM rates but also the charges to self-pay patients by a bad debt and charity care allowance. The BDCC allowance is approximately 1 percent for the statewide pools and about 5.5 percent for the regional pools. These funds are available for a variety of purposes including the following:

- Care for indigent patients.
- A capital fund for financially distressed hospitals.
- Transition costs when the BDCC formula changes.
- Pilot projects for insuring the uninsured, catastrophic illnesses, prenatal care programs, and other legislative programs.

The assessments reimburse a portion or all of the costs associated with serving those patients unable or unwilling to pay for services rendered. Regional pools receive funds that total 5.48 percent of total reimbursable inpatient costs for all general hospitals after application of the trend factor, but excluding Medicare inpatient costs.

BDCC payments are made on the basis of "need," which is defined as inpatient bad debt and charity care reduced to costs plus the hospital outpatient deficit. NYPHRM established two different disbursement mechanisms for the uncompensated care pool. Major public hospitals (primarily New York City's Health and Hospitals Corporation) receive payments based on their share of statewide reimbursable costs. Remaining funds are returned to regional pools and distributed across hospitals to equalize the percent of reported need financed. Thorpe (1987) points out that the assessments had increased through the 1980s, so that 96 percent of reported need among private hospitals and 17 percent of that of major public hospitals was met. Between 1988 and 1994, the subsidies have been relatively lower, meeting only about 40 percent of need reported by private voluntary hospitals.

6.7 OUTLIERS, SHORT STAYS, TRANSFERS, AND ALTERNATIVE LEVELS OF CARE

NYPHRM sets separate payment rates for cases that are outliers in terms of their lengths of stay or costs. It also pays different rates for cases that are transferred, that have very short stays, or that require alternative levels of care. This section discusses each of these exceptions.

6.7.1 Outliers

NYPHRM, like Medicare's PPS, pays an average rate for most inpatient discharges. This payment method places the hospital at risk for managing the care and costs of most patients. If the hospital controls the

care for each case, it is expected to at least break even, on average. However, some proportion of cases are outliers in terms of severity. These more severely ill patients require more days of care or more intensive treatment, or both, regardless of how carefully the hospital manages the care.

NYPHRM places the risk for these most costly inpatients on the payers, by establishing additional payments for cases that it defines to be outliers. There are two ways that a case can qualify as an outlier: by having an exceptionally long length of stay or exceptionally high costs.

Long-length-of-stay outliers are defined by the DRG-specific trimpoints for non-Medicare cases. Each trimpoint is a set number of days above the geometric mean length of stay for the DRG. The trimpoints must meet two conditions:

1. No long-stay trimpoint can be more than 40 days longer than the geometric mean length of stay for the DRG.

2. The total cost of outlier stays must equal 3 percent of total inlier and outlier costs. This second condition implicitly reduces the hospitals' risk of outliers by including 97 percent of all inpatient costs in the inlier payments.

The payment for each extra day of a long-stay outlier case is a per-diem rate set at 60 percent of the group price non-Medicare per diem. NYPHRM calculates this per diem by dividing the upstate and downstate group average DRG operating costs per discharge by the hospital's group average arithmetic mean length of stay for inlier cases in that DRG. By paying only 60 percent of this average cost per day, NYPHRM tries to reimburse each hospital only for the marginal operating costs of the additional days of care. By using the group average, NYPHRM holds the hospital at risk for managing costs per day for the length-of-stay outliers.

Since 1991, hospitals receive the higher of the high-cost or long-stay outlier payments. High-cost outliers are defined as cases with costs that are either more than twice the hospital case-based DRG rate or six times the hospital's average case-based rate of payment. Payments are calculated by first multiplying the total billed charges for the patient by the cost-to-charge ratio, and then subtracting from that cost estimate either twice the hospital's DRG payment rate for the patient or six times the hospital's group-based average DRG payment, whichever is greater. In setting such high thresholds for high cost outliers, the New York Assembly included most of the hospitals' costs in their base rate. This policy implicitly reduces the risk for hospitals.

6.7.2 Short Stays

To reduce the financial incentives for hospitals to admit patients for only a day or two and then collect a full DRG-based payment, NYPHRM pays less than the average for discharges that qualify as short-stay cases. Short-stay patients are defined as non-transfer and non-newborn cases discharged from a hospital on the day of admission or before the stay has reached a DRG-specific trimpoint. Payment for these cases is set at 150 percent of the average cost per day for the DRG into which the case falls. This average is calculated by dividing the hospital's

non-Medicare DRG case-based rate of payment by the hospital's arithmetic mean length of stay for inlier cases in the DRG. A payment for bad debt and charity care is added to this per diem.

The short-stay trimpoints vary by DRG and for upstate and downstate hospitals. For DRGs with a statewide arithmetic mean length of stay less than three days, the trimpoint is one day. For DRGs with an arithmetic mean length of stay of three days or more, the short-stay trimpoint is either one day or 20 percent of the average length of stay, whichever is greater. The majority of the short-stay trimpoints are either one or two days. The longest is 13 days (for DRG 604, Neonates with a birthweight of 750 to 999 grams, discharged alive).

6.7.3 Transfers

When a hospital transfers a case to another hospital, which then treats and discharges the patient, it is not equitable for each facility to receive a full case-based payment. As with a short-stay patient, the transfer case qualifies under NYPHRM for a reduced payment. This payment, which differs for upstate and downstate hospitals, is a per diem for each day of the patient's stay. The payment to the transferring hospital cannot, however, exceed the DRG payment that would have been paid if the patient had been discharged. The per diem is calculated by:

1. Dividing the DRG-specific operating cost component by the hospital's group arithmetic mean inlier length of stay for the DRG.
2. Multiplying by a transfer adjustment factor of 120 percent.
3. Adding budgeted capital costs and an allowance for bad debt and charity care.

The facility to which the case was transferred and which finally discharges the case is paid the full DRG rate.

6.7.4 Alternative Levels of Care

Sometimes patients in acute care hospitals who require post-acute care in a skilled nursing facility are unable to be admitted to such a facility or receive comparable care outside the hospital as promptly as the acute hospital could discharge them. These patients can be assigned by the hospital to an alternative level of care (ALC), for which the hospital is reimbursed in addition to the DRG case-based payment for that patient. This payment arrangement makes it financially viable for the hospital to meet the patient's needs. Payment for the ALC patients includes an add-on for bad debt and charity care.

6.8 RATES FOR EXEMPT FACILITIES AND UNITS

Facilities and units are exempt from NYPHRM's case-based payment system if they meet one of the following criteria:

1. Are exempt units for purposes of the Federal PPS.

2. Provide only alcohol rehabilitation care (not detoxification or combined detoxification and rehabilitation care for alcohol or drug use) under the state licensing laws and standards.

3. Are an acquired immune deficiency syndrome (AIDS) center.

Losing or gaining Federal PPS-exempt status affects the state status in the following rate period.

NYPHRM sets per diems for exempt facilities and units for payment by Medicaid and other state government payers, insurers (called Article 43 corporations because they operate in accordance with Article 43 of the state Insurance Law), and HMOs. All other non-Medicare payments for services in exempt units or hospitals are on the basis of charges, with a cap on the liability to the patient set at 120 percent of the commercial insurer. As with nonexempt facilities, NYPHRM provides for a 2-percent discount for prompt payment of covered services. As with nonexempt facilities, HMOs can negotiate separate rates with the approval of the Commissioner and with justification based on lower costs.

NYPHRM bases the nonexempt facilities' per diems on allowable historical non-Medicare inpatient operating expense, trended forward. This non-Medicare operating rate is further adjusted for changes in volume and case mix. The adjustment rules are complex but basically recognize changes in volumes due to changes in either average lengths of stay or the number of discharges. Further, the adjustments, which are automatic, treat operating costs as fixed (and pay them) where there are decreases in volume, and as variable where there are increases in volume. For example, if patient days decrease by 0 to 5 percent, NYPHRM's sliding scale attributes 80 percent of the costs as fixed and pays them. The net incentive is to protect facilities from declines in volume due to cutting lengths of stay rather than cutting patients.

Changes in volume of less than 5 percent lead to an automatic payment adjustment, with no administrative appeal. A volume change greater than or equal to 5 percent in total certified days results in a further rate adjustment in accordance with the published schedule, but the facility can ask the Commissioner to review and revise the target volume and/or the fixed and variable percentages. These adjustments are also subject to administrative appeal.

Case-mix adjustments are made to the per diems paid to exempt hospitals and units other than designated AIDS centers. The cost weights reflect the non-Medicare costs per day for each DRG. No adjustment is made for the first 1 or 2-percent decrease in case mix.

A separate capital per-diem cost component is computed on the basis of budgeted capital costs allocated to the exempt hospital or unit.

For services provided to AIDS patients in a hospital designated as an AIDS Treatment Center by the State Hospital Review and Planning Council, the hospital receive an operating rate of payment based on its Center rate, trended forward and with a capital per diem and bad debt and charity care allowance added.

6.9 THE ROLE OF HMOS AND MANAGED CARE

Health Maintenance Organization (HMO) enrollments in New York have grown rapidly in the last year or two. Today, more than 20 percent of all privately insured people have their coverage through an HMO. The growth is attributable in part to NYPHRM's change to a case-based reimbursement system, which has given hospitals a financial incentive to shorten lengths of stay. The shorter lengths of stay have contributed to declining occupancy rates and increased willingness to negotiate separate rates for HMOs' inpatient stays.

However, separately negotiated rates do not permit HMOs to avoid sharing in the financing of hospitals' bad debt and charity care. The most recent legislation explicitly defines two ways in which HMOs help to provide medical care services for the indigent of New York. First, each HMO is given a target enrollment for the Medicaid population in its service area(s), defined on a county basis, that it must try to meet through managed care or fee-for-service enrollments, or through the state-sponsored subsidy program for children, called "Child Health Plus." This provision is being phased in through 1997.

If an HMO fails to meet its target enrollment, its negotiated inpatient rates are subject to a 9-percent surcharge that is paid monthly into a statewide HMO pool. This pool of money is redistributed to hospitals in the service area(s) to defray bad debt and charity care.

6.10 ADMINISTRATION

In New York, the Rate Setting Bureau in the Department of Health is responsible for setting hospital rates for all non-Medicare payers. The major reported advantages of being part of the line management of the state government (rather than an independent commission) are that the staff perceives a reduction in litigation and other complaints because the legislative process that underlies much of the rate setting system gives most stakeholders a chance to air their differences before the state legislature passes the laws. On the other hand, the political process may increase the levels of the rates and may target the spending for political reasons, rather than in ways that regulators might prefer. For example, legislative enhancements of the rate base generally target inpatients (and occasionally emergency departments) by increasing the base payment rates, while regulators might prefer to raise rates for outpatient clinics and freestanding providers, in order to encourage movement of care from inpatient to outpatient settings.

6.10.1 Staffing

In the Rate Setting Bureau, a staff of about 65 to 80 professionals and nonprofessionals, primarily rate analysts, auditors, and clerical staff, oversees the rates for almost 270 hospitals, 700 nursing homes (90 percent of whose revenues are from the Medicaid program), and more than 200 freestanding health care providers. In addition to the annual rate setting process, the staff handles 1,200 to 1,400 administrative rate appeals a year.

Training an analyst takes 18 to 24 months for all the department's activities. Staff turnover to industry positions was high in the early 1980s, but trained analysts are now taking jobs in other state departments (such as those responsible for special populations), which have more recently recognized the need to set payment rates or understand the structure of their payments.

Additional support for the Bureau comes from the Health Department's Legal Division and Management Information Division. The former provides legal support for litigation, appeals, and hearings involving the rates. The Management Information Division employs about eight full-time employees to process health care data.

Each general hospital is assessed an annual fee to support the Statewide Planning and Research Cooperative System (SPARCS). The fee is calculated on the basis of the hospital's proportionate share of the sum of total costs reported by all general hospitals. The fee cannot exceed 0.1 percent of the total certified cost of the hospital, and there is full public disclosure of the fee. The hospitals submit the amounts quarterly. Failure to submit on schedule may result in a 1-percent reduction in the hospital's rate for the period of time that the fee is delinquent.

The SPARCS databases include all inpatient hospital discharge records for all payers. These records include patient and provider identifiers (including a unique number for each physician that allows state analysts to describe a doctor's patterns of treatment across hospitals), dates of admission and discharge, diagnosis, charges, and some patient information such as date of birth and gender. Hospital cost reports, submitted to the Division of Health Care Financing, permit state analysts to distinguish operating and capital costs by exempt and nonexempt units within hospitals. They also provide information on facility revenues.

The DSS Medicaid claims files list patient and provider identifiers, dates of services, diagnosis and procedure codes, amounts charged, and amounts paid. DSS eligibility files include reasons and dates for eligibility.

6.10.2 Appeals

The Commissioner of Health considers written applications for adjustments to established rates based on a number of reasons, including:

1. Mathematical or clerical errors in the cost and/or statistical data originally submitted by the facility or revisions initiated by a third-party fiscal intermediary or government agency, or mathematical or clerical errors by the Department of Health.

2. Adjustments to established case-based rates of payment to reflect additional inpatient operational expenses related to construction or service changes that exceed 7-1/2 percent of the hospital's reimbursable historical inpatient operational expenses after application of the trend factor.

3. Mandated costs.

When service changes have required Certificate of Need (CON) approval, the net incremental costs for the initial year of a project's implementation and the first full calendar year of operation are determined by dividing the additional costs of the approved CON project by projected discharges. There is a cap of 110 percent of the facility's peer group average case payment rate for the new rate. This amount is reconciled after the fact with actual expenditures. Rate revisions in subsequent years may be made until the costs of the first full calendar year of project operation are reflected in the base year upon which the prospective rate is based. The regulations contain similar provisions for exempt units.

7.0 HOSPITAL AND PHYSICIAN RATE SETTING USING DRGs AND RESOURCE-BASED FEES IN WASHINGTON STATE

7.1 EVOLUTION OF PAYMENT SYSTEMS

Washington State has been very active in setting prices for medical care since the 1970s, when it adopted a hospital rate setting system. Managed care HMOs have also been a dominant factor in health care for two decades or more. Since the late 1980s, the state has undertaken major changes in its regulatory programs, abolishing the old hospital rate system, implementing new hospital systems, and extending rate setting to physicians for some payers. Then, in 1992, the Washington Health Care Commission submitted an extensive report on the state's health care system with recommendations to implement universal coverage and adopt managed competition as a way of controlling costs. Eventually, these reforms are expected to supersede at least some of the current rate setting systems, but as of mid-1994, none of the managed care reforms have been implemented.

This chapter begins with a discussion of the reasons why the original hospital system was abolished. This is followed by a brief description of the hospital and physician rate setting systems that replaced the old systems. Finally, a brief overview of the proposed managed competition system is given, with a concluding discussion of the potential interactions of rate setting and managed care.

7.2 HOSPITAL RATE SETTING

7.2.1 Original Hospital All-Payer System

From 1975 through 1985, Washington State had a functioning all-payer hospital rate setting system, administered by the Hospital Rate Setting Commission. Hospitals submitted budgets for review by the Commission. On the basis of allowable costs, the Commission approved a charge schedule that would cover costs given expected volumes. Staff would then perform year-end conformance reviews to assure that hospitals did not exceed expected revenues. In the interim, hospitals could apply to the Commission for rate adjustments for unexpected changes in case mix, nursing labor contracts, and other items.

In 1984, the Commission came up for sunset review. At that time, the legislature was interested in spurring more competition and allowing hospitals to discount charges to selected payers. Under the existing system, all payers had to pay the same approved charges. If discounts were allowed, they could not be offset by raising charges to other payers. Once discounting was allowed, many more hospitals applied to the Commission for interim rate adjustments, overwhelming the staff and creating significant lags in the adjustment process. It was

increasingly difficult for Commission staff to determine the extent of cost-shifting to other payers, which was theoretically prohibited.

By 1988, large payers, employers, and the hospital industry all agreed that the system had become dysfunctional. (Medicare, also, was no longer a part of the system.) Hospitals complained that competitive pressures from managed care resulted in major discounts that undermined the financial protection guaranteed in the original all-payer system. Another serious flaw was the system's requirement that no hospital could be closed due to underfunding. This gave hospitals considerable leverage in negotiating higher rates to make them whole for discounting. Thus, in spite of drastic declines in inpatient volumes, the state has the same number of hospitals today as in 1965. Although it has fewer beds per capita than any other state, Washington remains considerably overbedded. Rural occupancy rates run 35-40 percent, while urban hospitals labor under 45-55-percent occupancy. The current overbedding is partially attributable to the guaranteed funding provisions in the original all-payer legislation. In addition, small employer premiums were rising very fast due to cost shifting.

At the end, hospitals were dissatisfied with the all-payer system because of limitations on discounting and price competition, payers were dissatisfied with the failure of the system to control costs and close unneeded beds, and many small businesses were dissatisfied with extraordinarily large premium increases due to uncontrolled cost inflation and cost shifting away from large payers. The hospital industry's position was key to abolishing the old system. Its leaders realized that the managed care movement was gaining force everywhere, particularly on the West Coast. The Hospital Association's primary concern was that the industry not be singled out for health care cost control, which was happening under the all-payer system just for hospitals. It argued that the state was unique in that a greater percentage of health care payments flowed to physicians than hospitals, partly due to the lack of Certificate of Need controls on expensive diagnostic equipment in physicians' offices. The Association encouraged the legislature to broaden its system to include all health services and put the onus of cost control on payers. The result is the new managed care system now being implemented. The fundamental concept is to regulate individuals' overall health care premium in order to avoid the "balloon phenomenon" of shifting costs and services to other sectors and sites of care.

7.2.2 The Spread of Rate Setting

After the demise of the hospital rate system without a comprehensive managed care system in place, payers had to develop their own payment systems. A significant percentage of hospital services had already moved to DRGs under the Medicare Prospective Payment System. Blue Cross also uses DRGs for a significant number of covered lives as do Medicaid, Labor and Industries (Workers' Compensation), and Public Employees. Still, most of the small insurers either pay discounted charges or occasionally per diem or per case.

Growing concern over physician costs resulted in the eventual adoption of physician rate setting in the early 1990s for the three public payers-Medicaid, Labor and Industries and Public Employees. This system was

patterned after the Federal Resource-Based Relative Value Scale (RBRVS) system recently designed and in the implementation phase for the Medicare Fee System (MFS).

The next few sections of this chapter outline the DRG and MFS systems currently in place for public payers. They illustrate the ways in which the payer groups modified the Federal systems to conform to the goals and preferences of state decision makers. They also show the kinds of administrative structures that are desirable to design and implement rate setting reforms.

7.2.3 The Health Care Authority DRG Payment System for Hospitals

The state Health Care Authority (HCA) is a self-insured preferred provider organization (PPO) for state employees and retirees. It currently administers its own DRG payment system for hospital care. It also is the organizing body for implementing a joint MFS-based physician payment system for the three public payers. For hospital payment, Labor and Industries and Medicaid employ slightly different DRG systems from HCA's. This section focuses on HCA's DRG system, with comments about differences among the other two payers.

7.2.3.1 The Rate Base. The first step in setting DRG rates involved the definition and estimation of the rate base. Statewide standardized costs were used as the basis of payment, calculated as average per-case costs for cases to be included under DRG payment. Costs for hospitals and cases being paid either per diem or by discounted charges were carved out of the DRG-specific base. Several adjustments were made to the rate base for direct and indirect medical education costs, capital, geographic differences in wage rates, uncompensated care, and additional policy considerations (discussed below).

The DRG rate base was developed using the calendar year 1990 Health Department's Comprehensive Hospital Abstract Reporting System (CHARS) data base to allocate costs to DRGs, combined with Medicare Cost Reports to identify patient costs. Hospital costs were allocated to individual patients following standard Medicare practice, using days to allocate nursing services and cost-to-charge ratios for ancillary departments. Care was taken to clean and replace erroneous ratios identified using outlier algorithms. Missing departments on the cost reports with patient charges on the claims data base were imputed using similar hospitals or previous years. A price leveling factor was then employed to update each hospital's reported costs to December 31, 1990.

Applying the per diems and RCCs (ratios of costs to charges) from the cost reports to the CHARS data requires that the UB82 (Uniform Billing Form, 1982) charges be grouped into daily service and ancillary categories similar to the cost reports. This was fairly straightforward, but several imputations were required. For example, in a small number of cases, the sum of days in various bed accommodations did not coincide with admission and discharge dates, often due to discrepancies in birthing rooms and maternity stays. About 1 percent of cases were dropped when the discrepancy was greater than one day.

7.2.3.2 Calculation of the Base Rate. Three different base rates were calculated for (1) DRG inlier payments, (2) per-diem rates for rural and low-volume hospitals, and (3) per-diem rates for psychiatric, substance abuse, and rehabilitation DRGs. Rural and low-volume hospitals were too vulnerable to long-stay cases to be paid per case. Hospital representatives were used to decide on the breakdown and calculation of per diems.

Base rates represented standard operating costs minus direct medical education and capital costs, which are reimbursed separately. Rates were then adjusted to remove the effects of local area wage differences. Three hospitals--two children's hospitals and a cancer center--were excluded from per case payments due to concerns over the costs of their specialized services. Table 7-1 lists the excluded facilities and case types.

Within acute hospitals, all psychiatric, substance abuse, and rehabilitation cases were paid on a per-diem basis using a statewide aggregation of costs, adjusted for labor markets but not for direct medical education or disproportionate share status. Organ transplant and low-volume DRGs were paid on a hospital-specific basis using effective percent of charges as a payment base. This "discounted charges" approach defines effective percent as the ratio of inlier payment-to-charges for each hospital. Inlier payments are used to better reflect the costs of efficient hospitals. Inlier payments are determined after all policy parameters are implemented but exclude any extra outlier payments. Thus, if DRG payment for all other admissions in a given hospital amounted to 95 percent of all charges, then discharges in the transplant and low-volume DRGs would be paid 95 percent of submitted charges. For low-charge, transfer, left against medical advice, and same day discharges, hospitals are paid the lesser of their own effective percent of charges or the DRG rate, usually without any outlier payments. Outlier payments will be discussed later.

In total, roughly 30,000 discharges were singled out for other than DRG payment, leaving slightly over 200,000 HCA discharges in the per-case system. Three aggregations of the discharge files were computed depending upon type of reimbursement: (1) hospital exclusions, (2) DRG exclusions, and (3) DRG per-case inliers. In using the costs of any one hospital, no overall costs were allowed to exceed total charges. This was done to recognize that HCA would not pay more than charges in any given case, although any one hospital could be incurring costs below the standardized amount.

7.2.3.3 Outliers. Establishing the inlier base rate requires establishing an outlier policy. HCA made a policy decision to establish the outlier payment threshold such that 8-10 percent of payments go to high-cost outliers. Simulations determined that a 2-standard-deviation-threshold above and below mean charges per case resulted in 10.4 percent of final, cost-based, payments going to outliers. Thus, the two standard deviation threshold was used.

In paying for outliers, the system first identified a high-cost outlier as a patient with estimated costs exceeding either twice the DRG rate or $10,000, whichever threshold is lower for a given DRG. Estimated costs are based on the effective percent of charges, or actual charges times the hospital's cost-to-charge ratio. The

TABLE 7-1

PAYMENT APPROACHES FOR HOSPITALS AND CASES EXCLUDED FROM THE PER-CASE PAYMENT SYSTEM

EXCLUDED HOSPITALS

Category of Excluded Hospital	Number of Hospitals	Option	Standard	Payment
Psychiatric, Substance Abuse, and Rehabilitation	2	0		Hospital Excluded from Project
Cancer (Fred Hutchinson, Cancer Research Center at Swedish Hospital	1	1	Hospital Specific	Medical and Surgical All - Inclusive Per Diems
		2	Hospital Specific	Single All - Inclusive Per Diem
		3	Hospital Specific	Percent of Charges
Children's	2	1	Hospital Specific	Medical and Surgical All - Inclusive Per Diems
		2	Hospital Specific	Single All - Inclusive Per Diem
		3	Hospital Specific	Percent of Charges
Rural/Low Volume	26	1	Statewide	Medical and Surgical All - Inclusive Per Diems
		2	Statewide	Singe All - Inclusive Per Diem
		3	Hospital Specific	Percent of Charges

EXCLUDED CASES

Category of Excluded Hospital	Option	Standard	Payment
Psychiatric DRGs	1	Statewide Labor Market Average No IME or DSH	All - Inclusive Per Diem for First Day All - Inclusive Per Diem for Each Additional Day
Substance Abuse DRGs	1	Statewide Labor Market Average No IME or DSH	All - Inclusive Per Diem for First Day All - Inclusive Per Diem for Each Additional Day
Rehabilitation DRGs	1	Statewide Labor Market Average No IME or DSH	All - Inclusive Per Diem
Transplant DRGs	1	Hospital Specific	Effective Percent of Charges
Low Volume DRGs	1	Hospital Specific	Effective Percent of Charges
Low Charge Cases	1	Hospital Specific Statewide	Lesser of Effective Percent of Charges or Fully Adjusted DRG Payment (no Outlier)
Transfer Cases	1	Hospital Specific Statewide	Lesser of Effective Percent of Charges or Fully Adjusted DRG Payment (including Outlier)
Left Against Medical Advice Cases	1	Hospital Specific Statewide	Lesser of Effective Percent of Charges or Fully Adjusted DRG Payment (no Outlier)
Same Day Live Discharges	1	Hospital Specific Statewide	Lesser of Effective Percent of Charges or Fully Adjusted DRG Payment (no Outlier)
Outliers	1	Inlier Part of Outliers in Wts and Average Cost	Multiple of Inlier Payment Plus Effective Percent of Charges Above Threshold
	2	Outliers Excluded from Wts and Average Cost	Effective Percent of Charges

SOURCE: Taken from Health Care Investment Analysts, Inc., "DRG-Based Reimbursement System for Inpatient Hospital Services," prepared for the Washington State Health Care Authority, October 1992.

$10,000 threshold is lower than Medicare's, which was considered too high to adequately protect hospitals. The final outlier payment formula is:

Payment = 1.75 x DRG rate + actual cost - threshold limit

For example, a patient with $50,000 in charges in a DRG discharged from a hospital with an effective-percent-of-charges ratio of 0.90 is assumed to generate $45,000 in actual costs. With a $4,000 average DRG payment, and using the $10,000 threshold, total payment for the discharge would be $42,000 (= 1.75 x $4,000 + $45,000 - $10,000). This amounts to an effective discount of charges and costs of 16 and 7 percent, respectively. The 1.75 parameter was based upon simulations designed to return 10 percent of payments in the form of outliers. Also note that this payment covers the entire cost of the stay, not just the outlier amount.

Unlike Medicare, HCA recognizes low-cost and short-stay patients as potential outliers as well. As shown in Table 7-1 above, these discharges are paid the lesser of the DRG payment or the effective percent of the hospital's charges (i.e., discounted charges).

7.2.3.4 Geographic Wage Adjustments. HCA used HCFA's labor market index for Washington State to adjust costs statistically in calculating standardized amounts. To avoid systematically over- or under adjusting, the HCFA index was normalized to the state's own hospitals by dividing each hospital's HCFA index by a charge-weighted average labor market index for all Washington hospitals. The resulting normalized wage index for each hospital was then weighted by 0.71 assuming, as HCFA does, that labor makes up 71 percent of hospital expenses. Finally, 0.29 was added to the index assuming no variation in nonlabor costs. Each hospital's total inlier costs were then divided by the index to adjust for geographic cost differences.

7.2.3.5 Per Diems for Excluded Hospitals and Cases. For rural and low-volume hospitals, HCA calculated separate per-diem standardized amounts for cases falling into medical vs. surgical DRGs. Analysis showed that surgical cases incurred $1,034 per day vs. just $623 for medical DRGs. Hospital-specific per diems were used for the few specialty facilities. Border hospitals in other states were excluded from the system altogether, as were psychiatric, substance abuse, and rehabilitation hospitals. However, cases of these last three types treated by short-term general hospitals were included. Rehabilitation DRGs were paid according to an all-inclusive statewide per diem. A two-tiered per diem was adopted for psychiatric and substance abuse cases based on the first day of care being considerably more expensive (25 percent) than subsequent days of care. See Table 7-1 for the method of paying for other excluded cases.

7.2.3.6 Adjusting for IME and DSH. Base rates were further adjusted for indirect medical education (IME) and disproportionate share hospital (DSH) costs. An Ordinary Least Squares regression was used to calibrate these two parameters:

$$CPC_h = CPC_0 \times CMI_h \times [\ 1 + \alpha IME_h + \beta DSH_h] + \varepsilon$$

where the left-hand-side is the h-hospital's own estimated total costs per case, CPC_0 = the overall state average cost per case, CMI_h = the hospital's own HCA-defined case-mix index, and ε = error term. The estimation was done in iterative fashion to produce adjustment factors, α and β. IME was defined as the ratio of the hospital's interns and residents to beds minus the statewide average teaching ratio, while DSH was defined as the ratio of medical assistance revenues plus bad debts and charity care to total charges minus the statewide average ratio. The IME adjustment coefficient equals .17 while the DSH coefficient equals .145.

The IME and DSH adjustments were applied only to the per-case base rates since per-diem rates already capture severity due to longer stays.

7.2.3.7 Adjusting for Capital Costs. HCA has adopted, at the hospital industry's request, a simple flat capital add-on of $300 per case. Capital is defined in the standard way to include interest, depreciation, leases, and rentals. This flat rate is added to the standardized base rate that is then multiplied by the DRG weight for any given discharge. Thus, an open heart surgery case with a DRG weight of 5 would return $1,500 in capital costs to the institution. Using a flat add-on puts the hospital at significant risk regarding variation in high-cost, high-weight DRGs. It also ignores differences in the capital investment cycle across facilities.

7.2.3.8 Direct Medical Education (DME). HCA carves out direct medical education costs involving intern and resident salaries for special reimbursement. Following the recommendation of the Council on Graduate Medical Education that "...at least 50 percent of all residency positions should be in family practice, general internal medicine, and general pediatrics," the Authority decided to reimburse DME on a sliding scale. Hospitals with less than 50 percent of their residency positions in primary care receive 50 percent of their established DME costs. Hospitals with 50-75 percent of their positions in primary care receive 75 percent of their DME costs. Hospitals with more than 75 percent of their positions in primary care receive 90 percent of their DME costs. DME is capped at 90 percent for two reasons: first, interns and residents substitute to some extent for nurses and second, patients should not be expected to totally finance a new physician's learning experience.

7.2.3.9 Adjusting for Uncompensated Care. HCA makes a hospital-specific adjustment for uncompensated care. The adjustment is defined as each hospital's bad debt and charity care as a percentage of gross patient revenues. The adjustment ranges from less than a 1-percent add-on to over 12 percent. In addition, HCA increased each hospital's rate base by 1.5 percent to account for the worsening economy and increasing number of uninsured since 1990.

7.2.3.10 Contribution to Hospital Margin and Physician Participation Adjustment. Besides the standard Medicare add-ons to DRG rates, HCA makes two additional add-ons. HCA recognized the industry's request for a margin with which to develop new programs and manage cash flow by making a 2-percent adjustment to the base rates.

HCA also decided to use its leverage in setting hospital rates to encourage hospital-based physicians to join its preferred provider network. Its purpose is to protect subscribers from additional coinsurance payments. To achieve participation, HCA adds another 2 percent to the base rate of any hospital whose hospital-based physicians (anesthesiologists, pathologists, radiologists, and ER physicians) all agree to participate in the network. To date, only 10 of 89 acute care hospitals have signed up for the physician participation program.

7.2.3.11 Calculating DRG Relative Values. Once the rate base is determined, with area and hospital-specific adjustments, the resulting standardized amounts must be further adjusted for case mix. In developing DRG relative values, HCA chose to base them on charges, primarily for reasons of simplicity. Medicare, Washington Medicaid, and Washington Labor and Industries do the same.

Charges were standardized for hospital labor market differences, teaching programs, and disproportionate share costs. Doing this introduces a circularity in that some of the adjustments require estimating cost regressions that include a case mix index for each hospital using DRG weights. This problem was addressed by, first, estimating the DRG relative values on unadjusted charges, running the necessary regressions, then reestimating the relative values on adjusted charges. Neither Washington Medicaid nor Labor and Industries developed standardized weights.

Defining DRGs was the next step. Several possible systems were considered, including HCFA's grouper, Yale Refined DRGs, CHAMPUS DRGs, and all-payer DRGs (APDRGs) used in New York. Due to its superior detail and accuracy, HCA adopted the New York system. DRG Grouper Version 9 was used to define DRGs under the New York system.

Washington Labor and Industries, by contrast, uses only two dozen or so DRGs most relevant to its working population.

7.2.3.12 Updating Rates. Two adjustments are made to base rates for changes in costs over time. First, the 1990 cost data upon which the 1993 rates were based had to be updated by 22.11 percent using the regional medical CPI and adjusted by the DRI (Data Resources, Inc.) PPS (Prospective Payment System) input price index, plus 1 percent, for the first six months of 1993. The DRI index was used to account for differential growth in service industry wages in Washington relative to the nation.

Second, base rates must be updated annually for inflation. On a technical level, price proxies must be readily available to update rates in a timely manner. At the same time, proxies should be sufficiently external from individual hospitals so as not to create a cost pass-through. It this regard, setting the update factor is the single most important parameter in payers' efforts to restrict increases in their outlays.

After lengthy discussion (see HCIA, Deliverable 3.1/3.2, July 1992), HCA decided to use DRI's PPS input price index, plus 1 percent to adjust for annual inflation. This index is based on various employment cost indices (EPI) for the wage proxy and was preferred over other indices in that skill mix is held constant. A PPS-like index is also preferred in that it uses hospital-industry input cost weights. The 1-percent add-on is for new technologies and services. The final DRI national cost index is further adjusted by the growth in service wages in Washington relative to the nation, as reported by the Bureau of Labor Statistics. This has the advantage of reflecting the differential economic growth in the state while not simply passing through hospital wage increases, as might happen if a hospital-specific wage index for Washington were used instead.

*7.2.3.13 **Payer Differentials.*** Because each payer--Public Employees, Labor and Industries, and Medicaid, as well as Blue Cross--operates its own DRG systems no "all-payer" DRG system exists in Washington *per se*. Each payer has its own standardized amounts that it uses, as well as different policy parameters and rules.

HCA, in particular, did not want to develop a system in conjunction with Medicaid. It wanted to build a different relationship with the hospital association. The Authority did ask its outside contractor to review Medicaid's system so that HCA was aware of any differences in policies in formulating its system.

*7.2.3.14 **Implementation and Management of the DRG System.*** To implement the system at HCA, an Internal Policy Group was formed of all major policy directors, including the HCA Director, Deputy Director, Director of Benefit Services, Director of Health Plans, the Authority CFO, and the like. This large group met once a month until the critical decision period when it met two to three times a month.

The HCA Steering Committee established a Technical Advisory Group (TAG) of internal and external provider members. This committee met six or seven times during the year's development phase on many issues surrounding DRG definitions, excluded hospitals and DRGs, update methods, etc. HCA also engaged an outside contractor, Health Care Investment Analysts, to lead the staff and advisory committee through the myriad policy and technical decisions and to conduct the empirical analyses. HCIA's contract was for $250,000.

In addition to the extensive involvement of the HCA policy group members, HCIA, and the TAG, HCA committed 1.5 FTE staff in the form of a full-time project manager plus a half-time support analyst. One of the staff's main activities was managing the outside contractor and the TAG.

Ongoing management is carried out by a five-person contracting team. This team's major responsibilities are negotiating contracts with all the hospitals and managing the third-party claims payer and the utilization review functions. This team meets on an as-needed basis to make policy changes, with the participation of members of the original Internal Policy Group. The major annual issue dealt with by the team is the annual update rate. Because the update is based on readily available secondary data, little time is spent on the issue. The staff are also responsible for adjusting the discounted charge factors and determining how to adjust payments for hospital mergers and how to respond to specific concerns, many of which have to do with high-cost outlier payments.

At present, two persons work with the HCA DRG Project Manager to carry out monitoring and evaluation of the system, which has been in operation for 18 months. It is expected that some of these tasks will also be contracted out. HCA is also committed to updating the DRG grouper every two years.

The organizational structure and staffing support needs of this system are relatively minor, partly because it is being run by a single agency for a single group of beneficiaries. No all-payer DRG system was established requiring joint interagency structures, as with the new physician payment system. Also, much of the development and implementation methodology was developed by HCFA and DRI and is being adopted and modified when needed. Updated DRG groupers are readily available, as are inflation indices. A true all-payer system would require considerably more staff input, committees, etc., as described next with regard to the new physician payment system.

7.3 PHYSICIAN RATE SETTING

In 1990, Washington State's Health Care Authority completed a Study of State Purchased Health Care. The principal recommendation of the study team was that state purchasers should maximize public enrollment in managed care systems. At the same time, it was recognized that fee-for-service arrangements would continue for some time, and that the state should therefore adopt more efficient purchasing arrangements to control costs of those not enrolled in managed care.

The legislature appropriated funds and appointed HCA as the state's project contract manager to coordinate the development of a single physician payment system for three public payers.

7.3.1 Participating Agencies

Three public payers worked together to design and implement a Resource-Based Relative Value System (RBRVS) for physician reimbursement:

- Health Care Authority (HCA): A self-insured PPO for state employees and retirees.
- Medical Assistance Administration: State Medicaid Program.
- Labor and Industries: Workers' Compensation Program.

Staff at HCA were responsible for overall project management, contractor management, final approval of project deliverables, and chairing the various committees established to design and implement the system.

7.3.2 Goals in Setting Up A Three-Payer System Based on the MFS

The agencies established three key goals:

(1) Replace the current payment systems with a set of uniform prospective fees.

(2) Combine the purchasing power of the three payers to provide more appropriate delivery incentives for primary care.

(3) Reduce the administrative burden on providers by adopting uniform and streamlined billing and payment rules.

Thus, three related advantages were seen in integrating the physician services purchasing functions of the three agencies. First, having all three payers use the same RBRVS payment system would eliminate much of the confusion among providers over different payment policies. Second, the common payment system could facilitate the payers' using their combined purchasing power to encourage physicians to continue to accept their enrollees at the new RBRVS rates. And third, a single uniform system would require only one billing form and set of processing rules, resulting in paperwork savings for providers and reduced administrative time across the three payers.

7.3.3 Overview of the RBRVS Physician Payment System

The design process resulted in the following adaptation of Medicare's Fee Schedule (MFS):

(1) HCFA's relative value units were adopted by all three payers, except that Medicaid decided to develop its own state-specific RVUs for preventive, newborn hospital, obstetric, and optometry services.

(2) The payers developed RVUs for several services not included in the MFS, including team conferences, telephone consultations, services on Sundays and holidays, direct advanced life support, and initial care for newborns.

(3) Different conversion factors (CFs) were adopted for the three payers consistent with each agency's mission and goals. Both the Health Care Authority and Workers' Compensation adopted a single CF. Medicaid initially retained its existing maternity fees, but eventually established four separate CFs for maternity, pediatric, adult office, and all other services. CFs for Workers' Compensation and Medicaid were set so as to be budget neutral, while the Health Care Authority reduced its CF to achieve a 5-percent savings.

(4) Inclusion of anesthesia services was deferred until a new method that deals with base and time units could be developed.

(5) The Steering Committee (see Section 7.3.5.2, below) rejected Medicare's use of a single chiropractic code and is in the process of developing a state-specific coding approach.

(6) In setting the practice cost RVUs the three payers rejected Medicare's four geographic localities in favor of a single statewide RVU figure for each service.

(7) While the state adopted Medicare's global surgery payment rules and its RVUs for professional and technical components, it decided not to reduce payment for new physicians.

(8) Fewer supplies were bundled in with office visits and procedures than under Medicare, and EKGs are paid for separately. The three payers also decided not to allow payment differentials by site of service because it was felt that utilization review rather than payment incentives, ought to determine inappropriate settings.

(9) The payers agreed to treat vaginal and cesarean deliveries the same for payment purposes.

In making their decisions, the three payers acknowledged the path breaking work accomplished by the Health Care Financing Administration in Washington. Clearly, the underlying structural MFS model remains intact and relatively few policy decisions deviated from national Medicare policy.

The state did admit to certain disadvantages of patterning the system after the MFS. Medicare has many opponents, especially in the provider community. Some of the policy deviations were believed to be necessary to placate providers. Furthermore, some of Medicare's policy decisions, were thought to have been made for political reasons, such as bundling the EKG payment into an office visit. These were not necessarily wrong, but Washington State and the three payers operate in a different political environment that required some changes. And lastly, Medicare rules and fees were felt to be constantly changing, sometimes for technical reasons, but often for political reasons. The state has assured providers that its system will provide more continuity and ongoing input before changes are made.

7.3.4 Top 10 CPT Codes by Payer

Different payers experience quite different mixes of services, and each will have its own financial and access concerns. In designing an all-payer physician system, it is important that these differences be recognized early on by the participants and that special groups be identified to ensure proper attention is given to the crucial codes. Services deemed trivial in number and expense by one payer may dominate another payer's budget. Part of the challenge of putting together a single payment system across payers is to deal with the unique services in a thorough way.

For those unfamiliar with the most common service codes that appear in an RBRVS system, it may be useful to review the experience of the three payers in Washington State. First, a focused office visit of low complexity for an established patient is either first or second most common for all three payers. Indeed, four of the five top codes for Medicaid are low or moderately complex office (or outpatient department) visits for either adults or children. Medicaid's single more common code is for routine obstetric care including antepartum care, delivery, and postpartum care. Vaginal or cesarean deliveries without the associated pre- and post-delivery care rank sixth

and eighth, respectively, for Medicaid while none of the maternity-related codes appear in the top 10 for Workers' Compensation. Routine complete maternity care ranks sixth among Health Authority public employees.

Among Workers' Compensation services, physical therapy codes rank second and third most common, psychotherapy ranks sixth, an MRI of the spine ranks eighth, and a visit to the emergency room ranks ninth.

Among public employees, a 50-minute psychotherapy visit is second most common behind a routine office visit. Chiropractic manipulation ranks fourth, supplies fifth, and a mammogram ranks eighth for the same population.

7.3.5 Implementing the RBRVS System

7.3.5.1 Responsibilities of HCA. In designing and implementing RBRVS for three payers, the Health Care Authority had several responsibilities. First, as one payer, it had to provide data files of its own member claims in order to develop the fee schedule.

Next, because it chose to contract out some of the development work on behalf of all three payers, the agency was responsible for negotiating a contract, reviewing and approving the contractor's policy recommendations, and reviewing and approving all deliverables under the contract.

Another major responsibility was organizing and participating in stakeholder meetings to establish uniform reimbursement policies. Several meetings were devoted to questions of who should be involved in the process and how to ensure that all affected parties had a voice in the decision making. As described in the next section, an Interagency Steering Committee and a Technical Advisory Group were formed, with major responsibilities in support of HCA.

The HCA also had to develop its own agency-specific conversion factors (CFs). These factors are crucial in determining total outlays, and the agency had to make important policy decisions that weighed possible increases in physician expenditures against restricted access to plan members if fees were set too low.

Finally, the agency had to oversee and manage fee schedule implementation within the agency.

Within each payer group, many tasks had to be accomplished, including the following:

- Reviewing and cataloguing current payment methods and policies.
- Analyzing program service use and costs.
- Determining access requirements.
- Conducting a feasibility study of implementing RBRVS.
- Selecting providers, especially non physicians, to be included.
- Developing and finalizing the policy options.
- Developing, running, and analyzing the financial impact models.
- Establishing an implementation schedule.
- Preparing claims for analysis.

- Determining the claims process conversion requirements.
- Implementing and testing system changes.

7.3.5.2 Membership and Responsibilities of the Steering Committee and Technical Advisory Group. To begin the project, the HCA organized a two-day meeting of staffs of the three payers. Out of this meeting came consensus on the project's goals, on what would be delegated to an outside contractor, and on a broad timeline to complete the conversion to RBRVS. To continue the process, the three payers established a 10-member interagency steering committee (the RBRVS Steering Committee) that met weekly and was responsible for managing all aspects of the project.

The Steering Committee, in turn, recognized the need for a Technical Advisory Group (TAG) to obtain input from stakeholders and provide technical advice on the complicated issues surrounding new procedures, changes in old procedures, reimbursement methods to assure equity among providers, etc. Criteria for choosing TAG members included:

- Agency representatives.
- State professional association representatives.
- Physicians in active practice.
- Clinical, billing, and pricing expertise.
- Regional perspective within the state.
- National expertise.

The TAG dealt with a wide range of issues:

- Geographic adjustment factors.
- Global surgery payment rules.
- Payment rules for supplies and services.
- Procedure codes without Medicare RVUs.
- Site-of-service adjustments.
- Payment differentials between physicians and other practitioners.
- Modifier coding rules.
- Correct coding and rebundling rules.
- Payment for lab services.
- Differential payment for professional and technical service components.
- Transition approach.

Health care cost containment in Washington has recently taken a new direction. While the comprehensive program that is now being implemented will not necessarily displace the existing hospital and physician rate setting systems described in this chapter, it will, if successfully implemented, move the health care system as a whole away from rate setting and toward managed care. The TAG is an absolutely necessary part of the design process given the complicated nature of the RBRVS system. Also, any state should be aware that it cannot simply adopt the Medicare Fee Schedule as is. It does not cover the full range of services that the non-elderly would use--at least not as thoroughly as states would like, nor do any two payers apply exactly the same methods in reimbursing services. Many clinical decisions will have to be made, and only a clinically competent panel, in consultation with payer representatives, is capable of understanding key differences that have to be accounted for.

7.4 COMPREHENSIVE HEALTH CARE REFORM AND THE WASHINGTON HEALTH SERVICES ACT OF 1993

The Washington Health Services Act of 1993, signed into law by Governor Mike Lowry last May, represents one of the first state attempts to pass and implement comprehensive health care reform. The Act is similar in approach and structure to the Clinton Health Security Plan, as it relies on a form of managed competition with employer and individual mandates. The Act differs most obviously from the Clinton Plan in that it does not rely on an overall global budget and it places more emphasis on individual rather than employer mandates.

7.4.1. Who Administers the System?

The Washington Health Act creates a five-member Health Services Commission (HSC) to oversee the restructuring of the health care market, set administrative rules, certify the Certified Health Plans (CHPs), define the standard benefit package, and establish the maximum premium that can be charged for that package. The Commission is also responsible for designing medical risk adjustment mechanisms, establishing enrollee financial participation, overseeing the statewide data system and monitoring the new health care system's performance.

Four regional Health Insurance Purchasing Cooperatives (HIPCs) are created. These are nonprofit, voluntary organizations regulated by the Insurance Commissioner. Their purpose is to offer all CHPs in the geographic region that wish to contract with employer groups and to allow businesses to voluntarily group together to combine their insurance purchasing power. A state-run Basic Health Plan covers individuals who are otherwise uninsured and are not eligible for Medicaid.

The existing Health Care Authority (HCA) is designated the Consolidated State Purchasing Agent for Basic Health Plan (BHP) recipients, school employees and state employees. This Agent essentially acts as an HIPC for the groups covered under it and combines all state purchasing of health insurance into one agency. The Health

Care Authority Purchasing Cooperative is also created as a temporary agency to help day care teachers, foster parents, and people who provide in-home assistance to the elderly and disabled to group together and buy more affordable health insurance.

Health care services will be delivered by CHPs, which can be insurance companies, HMOs, or provider networks. The CHPs are regulated by the state Insurance Commissioner and are certified to assume financial risk for delivery of a standard benefit package. Each CHP must offer the standard benefit package for a premium less than or equal to an amount determined by the HSC. CHPs also contract and negotiate rates with providers using some form of prospective rate setting such as prospective payment or relative values.

7.4.2 Who is Covered?

The Washington Health Act declares that all Washington residents must be covered by a basic package of benefits by July 1999. The Act attempts to accomplish this goal through phased-in employer and individual mandates as well as through Medicaid and BHP expansions. Because the individual mandate does not include enforcement provisions, however, a substantial uninsured population that chooses not to comply with the mandate could remain in the state. Moreover, seasonal agricultural workers, who are currently exempt from the mandates, and illegal aliens, whose coverage provisions are not described in the legislation, may also prevent the state from achieving universal coverage.

Businesses must offer insurance coverage to all employees and their dependents. Employers can purchase health insurance by contracting directly with CHPs, purchasing BHP at full cost from the state, or buying through an HIPC. The Act requires employers to offer a choice of at least three CHPs to employees, one of which must be the least expensive plan in the region. For firms with more than 7,000 employees, one of the CHPs offered must be a self-insured CHP. There is no fee-for-service mandate and, after 1995, no fee-for-service options will be allowed under the Act.

All individuals must obtain health insurance. They can do so through their employers, by joining an HIPC, by purchasing BHP, or by qualifying for Medicaid. The state's risk pool for uninsurable individuals will be rolled into BHP.

To increase coverage of low-income individuals, the Health Act expands the Medicaid and BHP programs. Under Medicaid, by July 1994 all children in families under 200 percent of the Federal Poverty Limit (FPL) (v. the current 150 percent) were to be eligible for and enrolled in a managed care plan. This expansion was expected to add about 90,000 children to Medicaid. BHP, the state program that subsidizes the purchase of insurance from privately owned managed care plans, currently serves 24,000 individuals in households under 200 percent of the FPL. This program will be expanded to subsidize insurance for 60,000 adults and 135,000 children up to 200 percent of the FPL. In addition, eligibility for the program is changed so that any individual or employer can purchase insurance sponsored by BHP at full cost.

Medicare beneficiaries and Medicaid recipients will continue to be covered separately under their respective programs, although the governor will attempt to seek Medicare and Medicaid federal waivers to include these programs in the state reform plan. If a waiver is obtained, Medicare and Medicaid coverage will be purchased through the Consolidated State Purchasing Agent.

7.4.3 What is Covered?

The State of Washington deliberately chose to leave the details of the benefit package to be determined after successful passage of the health legislation. Under the Health Act, the newly designated Health Services Commission is responsible for designing a standard guaranteed benefit package, within certain guidelines. For example, the package must, at a minimum, include: physician visits; hospital care and surgery; emergency care; prescription drugs; home health and hospice care; some chemical dependency and mental health services; short-term nursing facility care; maternity, reproductive, and well-child care; and preventive dental services for children. Subscribers will pay copayments and deductibles for physician visits and certain other services. Employers can offer supplemental insurance over the standard benefit package although, rates for such benefits must be pre-approved by the Insurance Commissioner.

7.4.4 How is it Paid For?

One of the major impediments faced by states and the Federal Government to implementing health care reform is determining how to finance it. The Washington Act pays for health reform by increasing taxes on tobacco, alcohol, and health insurers and imposing a new tax on nonprofit hospitals. Revenues from these sources were expected to equal $251 million between 1993 and 1995, compared to estimated new expenditures of $241 million.

In addition, the Health Act requires employers and individuals to contribute to paying the cost of health care. For full-time employees, the employer mandate requires that employers contribute at least 50 percent and no more than 100 percent of the cost of the least expensive CHP in the region. Employers contribute a prorated amount for employees working less than 30 hours per week. Firms with fewer than 25 employees may be eligible for state subsidies to help finance their health insurance costs.

Under the individual mandate, employed persons will pay anywhere from 0 to 50 percent of the cost of the least expensive CHP in the region. The exact contribution must be negotiated with employers. Self-employed or unemployed individuals can purchase insurance at full cost through a Health Insurance Purchasing Cooperative (HIPC), from BHP, or directly from a CHP. Low-income individuals may be eligible for a state subsidy for their share of the premium.

7.4.5 How Does the System Contain Costs?

The Washington system is designed to contain costs using both competition and regulation. Through managed competition, the Health Act requires health plans to compete for subscribers on the basis of price and quality since price discrimination and risk selection are prohibited.

At the regulatory level, Washington has chosen to limit the growth of the individual insurance premium. The Health Services Commission will set a maximum premium that a CHP can charge for the uniform benefits package and will monitor the growth of the premium rates. Premium growth is restrained (reduced by 2 percent per year) until increases in the premium equal increases in the five-year average growth of the state per-capita personal income. The premium growth rate can be increased, however, if a two-thirds majority in the legislature approves. State lawmakers determined that regulating individual premiums would be more effective than setting expenditure targets at the state budget level, since individual premiums have greater direct meaning to consumers. Legislators calculated that, politically, regulating individual premiums would facilitate public support for fiscal control.

Threats to the state's cost containment efforts come from the lack of any expenditure limit on the Medicaid budget, the absence of regulations governing the acquisition of new technology, and the inability of the legislation to control the increasing costs of long term care. Finally, if universal access is not achieved, continued cost shifting could frustrate attempts to control the costs of health care.

7.4.6 Health Insurance Reform.

Beginning in 1994, the law restricts insurers abilities to exclude individuals, to use preexisting condition clauses, to refuse to renew policies, or otherwise to change the terms of, or rates charged, for a health insurance policy. After July 1995, all insurers must qualify as a CHP and offer the minimum benefit package based on per-capita community rates that cannot exceed the maximum premium set by the HSC. Experience rating will be prohibited, although adjustments for geography and age will be allowed. Malpractice reforms include mandatory mediation for all health-related tort actions and liability limitations equal to a party's proportion of the fault.

Firms employing 7,000 or more Washington residents must adhere to statewide rules about uniform benefits, premium pricing, and risk distribution. However, large employers who self-insure are exempt from the open enrollment requirement of CHPs. If the self-insured firm's risks are "consistently lower" than those of other plans within the state, such employers may be required to make payments into a statewide medical risk adjustment pool. The Employment Retirement Income Security Act (ERISA), which exempts self-insured employers from state coverage mandates, currently renders these provisions of the legislation unenforceable. Although the Act requires the governor to begin the federal waiver process, until the state receives a waiver it cannot require self-insured firms to comply with statewide coverage and benefit regulations. If large employers are exempt from complying with the Act, universal coverage and cost containment will be nearly impossible to achieve.

7.5 INTEGRATION OF RATE SETTING AND MANAGED COMPETITION

Health reform has moved strongly in the direction of managed care with ceilings on capitated premiums, a uniform minimum benefit package, insurance reforms, and the like. While the State is taking responsibility for much of the organization and design of the new system (for example, defining the benefit package), it is leaving the various payers to make arrangements with providers. Under current law, the Uniform Medical Plan for public employees will dissolve without renewing legislation. The Association for Public Employees has not done selective contracting in the past. Rather, it preferred to set payment rates for hospitals using DRGs and for physicians using a modified RBRVS fee schedule. It did not pursue selective contracts because it did not want to limit choices of providers for its plan members. The Association wishes to continue to give its members complete choice of providers, while regulating the prices paid for services. At this point, it is uncertain whether the Association will be allowed to continue to contract directly with providers on behalf of all its members. The alternative is to require Association members to join another capitated plan.

If Association members were required to join plans, the rates currently being paid for services could be used as benchmarks for setting a capitated rate. The Association would like to use its market leverage to maintain reasonable provider rates.

Plans operating under the managed competition system will enroll subscribers and have to negotiate rates with providers in local markets. It is likely that payers currently using DRGs and fee schedules will use their established rates in reimbursing providers. Depending upon their market leverage, they may lower their conversion factors to reduce average outlays.

Reimbursing providers in rural areas may be a particular problem for health reform. It may be that no plans wish to enroll residents in dispersed areas where the costs of doing so are high and many local providers enjoy service monopolies. In this case, residents without a private plan in their area will be able to join the BHP. HCA will probably continue to pay for hospital and physician services using DRGs and fee schedules and bear the risk for utilization.

Because Washington State is in the process of defining the uniform benefits package and plans are still organizing by region and interest group, it is difficult to say how rate setting and managed care will be integrated. Those groups using DRGs and RBRVS systems want to continue to use them. Whether they will be legally allowed to do so is unclear at this point, but they probably will. The fact that plans using DRGs and fee schedules would pay providers different rates from those of other plans that negotiate discounted charges (or on some other basis) is moot in the context of managed care. All plans are free to negotiate the method and level of payment. One difference, which may be fundamental, is that a DRG or RBRVS system sets provider rates at the system level rather than the provider level. Its rates tend to be averages, often based on conversion factors that are budget neutral in the first instance. This is distinct from large insurer plans negotiating the best rates they can get from

individual hospitals or physician groups. Greater overall savings are likely to accrue from individual provider negotiations, although this depends upon the conversion factors set by payers using rate setting methods. Higher labor costs involved in negotiations, plus the limitations on provider choice, are potential disadvantages to managed care versus setting rates and letting subscribers use whichever facility they wish. On the other hand, state agencies may wish to avoid the extensive bureaucracy involved in setting rates for some or all provider groups by simply requiring that Medicaid, public employees, and the otherwise uninsured join private plans. Under this scenario, states only have to regulate the premium, although issues of access and quality naturally arise.

8.0 HOSPITAL AND PHYSICIAN RATE SETTING IN MINNESOTA

8.1 INTRODUCTION

The health care system of the State of Minnesota has several distinctive features. First, managed care penetration is among the highest in the country. The Twin Cities of Minneapolis and St. Paul represent one of the country's most mature HMO markets. Second, the state has a progressive tradition of providing publicly funded social services to its population, and being in the vanguard of innovative health systems reforms. For these reasons, Minnesota's experience contains valuable lessons for other states as managed care gains market share and states attempt to extend health insurance coverage to their entire populations.

Current health reform efforts are an outgrowth of several years of legislative effort, beginning with passage of the original "HealthRight" (now "MinnesotaCare") bill in 1992. In April of 1994, Minnesota's Senate passed an expanded version of "MinnesotaCare." Despite these legislative actions, Minnesota has not implemented comprehensive reform, and is not scheduled to achieve universal coverage until 1997. The main stumbling block, as is true on the national level, is the source of financing for extending insurance coverage. Financing is contentious even though only 7 percent of Minnesota's population currently lacks health insurance, and the state has a relatively robust economy.

Minnesota is divided into two types of health care markets, with roughly equal population. The Twin Cities metropolitan area has a population of over 2 million, large enough to support multiple competing managed care health plans. Outside the Twin Cities, Minnesota is largely rural and agricultural, with little managed care penetration. Traditional fee-for-service medicine is dominant in most nonmetropolitan areas.

The urban-rural dichotomy has shaped Minnesota's health reform efforts. The 1994 bill calls for two coexisting health systems: managed care, dubbed "Integrated Service Networks" (ISNs), and a "Regulated All-Payer Option", or RAPO, which regulates all payers outside the managed care system. The ISNs are intended to be a further evolution of the HMOs already dominant in the Twin Cities area. RAPO will collect the residual fee-for-service plans, which predominate in rural areas, into a unified rate setting system, allowing overall expenditures to be controlled. Over time, Minnesota intends to extend the ISN managed care networks into nonmetropolitan areas, steadily shrinking the rate setting system. Because the long-term objective is to expand managed care networks (ISNs), Minnesota's proposed "all-payer" option (RAPO) has received less attention and is not well developed at this point. Currently, the RAPO hews closely to the Medicare model with few state-specific features, unlike the mature rate setting systems in New York and New Jersey.

Minnesota's transitional "dual systems" approach could be a model for other states that wish to integrate a growing managed care sector with all-payer regulation of a traditional fee-for-service sector. This approach could be particularly applicable to states having both metropolitan areas that can support competition among prepaid health plans and nonmetropolitan areas where a fee-for-service model is more sustainable.

In the next section, we first describe hospital rate setting as currently practiced in Minnesota's Medicaid program (Section 8.2). In Section 8.3, we describe Minnesota's health system reform plans. Section 8.3.1 gives a general overview of the "MinnesotaCare" reform package. Section 8.3.2 describes plans for the managed care component of Minnesota's planned reforms, the ISNs. Section 8.3.3 describes the plan for hospital rate regulation under RAPO. Section 8.4 concludes the chapter by identifying some major unresolved issues in Minnesota's health care reform and reporting comments of stakeholders on aspects of the system.

8.2 CURRENT RATE SETTING UNDER MEDICAID

8.2.1 Hospitals

Since 1985, Minnesota has used a prospective payment system to reimburse hospitals for inpatient care of Medical Assistance and General Medical Assistance recipients. Rates are determined by trending each hospital's base-year allowable costs forward by an inflation factor. Payment rates for admissions are given by the following formulas:

Medical Assistance rate per admission:

(1) Payment Rate = [(adjusted base-year operating cost per admission) x (relative weight) + (property cost per admission)] x [disproportionate population adjustment]

General Assistance Medical Care rate per admission:

(2) Payment Rate = (adjusted base-year operating cost per admission) x (relative value of the diagnostic category) x (disproportionate population adjustment) + (property cost per admission)

The diagnostic categories are groups of Medicare DRGs. A different set of diagnostic categories is defined for each of the following:

(1) Medical Assistance recipients.

(2) Aid to Families With Dependent Children medical assistance.

(3) General Medical Assistance Program.

(4) Rehabilitation hospital or rehabilitation distinct part unit.

(5) Neonatal transfers.

For example, payment for medical assistance is based on 76 groups of DRGs. Typically, the DRGs making up a group are in the same Major Diagnostic Category (MDC). For example, the 35 DRGs in MDC 5 are placed into two groups depending on whether a surgical procedure was performed. A few Medicare DRGs are subdivided by age or ICD-9 diagnostic code to more accurately classify cases in the Medical Assistance population (for example, neonatal care). Rates in 1993 were derived from 1988 base-year allowable hospital costs,[1] adjusted for case mix, trended forward by a hospital cost index. Beginning with the 1995 rate year, the base year will be moved forward three years.

Relative values are defined on a Minnesota-specific basis as the mean allowable cost for a diagnostic category relative to the mean allowable cost across all cases. They are calculated using Minnesota Medical Assistance claims. Weights are updated every two years. Minnesota uses the Medicare definition of allowable costs, and defines costs using departmental cost-to-charge ratios.

Capital costs, referred to as "property" costs, are defined as depreciation, interest, rents, leases, property taxes, and property insurance. Medicaid reimburses capital costs on a per-admission basis. The property cost payment is base year cost plus 85 percent of the increase in cost between the base year and the most recent year for which data are available. Minnesota Medicaid estimates the capital costs of each hospital's Medicaid claims in a base year using that year's Medicare Cost Report. Days in each routine service area (medical-surgical, nursery, etc.) are multiplied by capital-related costs per day for that area from the Medicare Cost Report. Ancillary capital-related costs are estimated using cost-to-charge ratios. The base-year claims are then recosted using the most recent available Medicare Cost Report to determine the increase in costs. A flat amount is paid per admission. No adjustments are incorporated for case mix, relative values, or other factors. The base year is updated every two years. Property costs are not subject to the hospital cost index rate-of-increase limits.

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[1] Children's and long-term hospitals had a 1989 base year.

Minnesota makes additional payments to hospitals that treat a disproportionate share of medical assistance or low-income people. An add-on to Medicaid operating cost payments is defined as the difference between a hospital's percentage of Medicaid days and the statewide average hospital percentage of Medicaid days. Thus, if a hospital has 20-percent Medicaid days and the state average is 7 percent, the hospital's Medicaid operating cost payment per admission is increased by 13 percent.

The Minnesota Hospital Cost Index is derived from price inflation data published by Data Resources, Inc. for the following categories:

- Wages and salaries.
- Employee benefits.
- Medical and professional fees.
- Food (uncooked).
- Utilities.
- Insurance.
- Other operating costs.

Minnesota-specific hospital cost weights (proportions of total costs) are used to combine the inflation rates for the input categories.

Cost and day outliers are recognized. Outliers are paid according to the DRG amount plus a per diem (day outliers) or an estimate of marginal cost (cost outliers). The per diem for day outliers is adjusted base year operating costs per day outlier multiplied by the relative value of the diagnostic category and the disproportionate population adjustment. Day outlier thresholds differ by diagnostic category. Cost outliers are paid according to 70 percent of charges adjusted by a hospital-specific cost-to-charge ratio, except for neonate and burn diagnoses, which are paid 90 percent. In both cases, the amount is multiplied by the disproportionate population percentage.

8.2.2 Physicians

Minnesota Medicaid is legislatively mandated to pay physicians using a fee schedule. Fees are currently the 50th percentile of charges submitted to the Medicaid program in 1989. Payment is the same statewide, with no substate geographic payment areas, or differences by specialty or type of provider. Upward adjustments to fees of 5 to 20 percent have been made for obstetrics, dental, and pediatric services, and services provided in public and community health clinics. There is no regular fee update; the

legislature updates the fee base from time to time depending on available resources. The last update was in 1992, when the base year for fees was rolled forward from 1982 to 1989. Minnesota Medicaid plans to move toward a fee schedule like Medicare's under the regulated all-payer option of Minnesota's health reform (see Section 8.3.3 below) for Medicaid enrollees remaining in the fee-for-service sector. However, the state's goal is to have virtually all Medicaid enrollees in managed care within the next few years, up from the current one-third.

8.3 MINNESOTA HEALTH SYSTEMS REFORM

Recent health reform efforts in Minnesota began with the passage of the 1992 MinnesotaCare program. This was a limited program subsidizing health insurance for low-income Minnesota families who have children, are unable to get employer-paid health insurance, and are not eligible for Medicaid, and instituting some small employer/individual insurance market reforms. In April 1994, the Minnesota Senate passed a much more ambitious health reform bill. However, the 1994 MinnesotaCare Act is only a blueprint that will not be fully phased in and funded until 1997 at the earliest.

8.3.1 Overview of 1994 MinnesotaCare

8.3.1.1 Organization of Health Care Providers. Under Minnesota's proposed health systems reform, providers will have two options: (1) the HMO-like Integrated Services Networks (ISNs); and (2) the fee-for-service Regulated All-Payer Option (RAPO). Minnesota's reforms envision that eventually most state residents will be voluntarily enrolled in ISNs, which are preferred because of their comprehensive managed care and greater potential to control medical costs. The RAPO is seen as a transitional system that will gradually be displaced by the ISNs. The RAPO is established in recognition of the current large fee-for-service market share in the state, especially in nonmetropolitan areas where managed care has not yet penetrated to an appreciable extent. Thus, the RAPO will apply to:

- All health care services to Minnesota residents not enrolled in an ISN.
- Out-of-network services provided to enrollees of ISNs.
- All health care services provided by a RAPO insurer.

The RAPO will be mandatory for insurers and providers providing services outside of ISNs. However, Medicaid, General Assistance Medical Care, and the MinnesotaCare program for the uninsured will initially be excluded from RAPO and will be phased in later while Medicare and Workers' Compensation will not be included at all. Most enrollees in these public plans will eventually be folded into managed care

rather than RAPO. RAPO insurers are not allowed to "employ or contract with health care providers, establish a network of exclusive or preferred providers, or negotiate provider payments that differ from the all-payer fee schedule." The relationship between ISN and RAPO payment rates--and possible cost shifting between the two--for providers providing services to both has not been addressed. In general, integration of the ISN and RAPO system has not been considered in detail yet.

8.3.1.2 Who is Covered? The 1994 Act commits the state to achieving universal coverage by July 1, 1997, through an individual mandate to purchase insurance.

In the last several years, Minnesota has been expanding access to health insurance by low-income individuals and families. The 1992 MinnesotaCare included a Children's Health Plan (CHP) which provided subsidized health care to children in families with incomes of up to 185 percent of the Federal poverty limit (FPL). In 1993, the program was expanded to apply to families with children whose incomes are below 275 percent of FPL. In 1994, coverage under the CHP was scheduled to apply to all individuals and families that have been state residents for at least six months, have been uninsured for at least four months, and have not had access to employer based insurance for eighteen months.

8.3.1.3 What is Covered? As of January 1, 1996, each health plan must offer a Universal Standard Benefit Set (USBS) to enrollees. The legislation mandates that the benefit set contain all necessary and appropriate health services, but the preliminary definition of the USBS was not to be developed until January 1995. Ultimately, up to five standard benefit plans will be designed that differ based on the level of cost sharing. Plans are free to offer supplemental coverage for services not offered under the standard benefit set.

8.3.1.4 How is It Paid For? The 1992 MinnesotaCare legislation was financed through a variety of revenue sources, not a broad based income tax increase. In addition to enrollees' income-based premiums and copayments, a new 2-percent surtax on gross private pay revenue of physicians and hospitals was enacted, as was a 1-percent gross premiums tax on HMOs, and a 5 cent per pack increase in cigarette taxes.

The funding source for universal coverage under the 1994 legislation has not been specified. A national or state employer mandate may cover some of the uninsured. An individual mandate to purchase insurance, with subsidies for low-income individuals and families is another mechanism, although how it would be enforced, and how the subsidies would be funded are not specified.

8.3.1.5 How Does the System Contain Costs? The state expects that the primary source of cost containment will be price competition among ISNs. RAPO insurers will also compete on insurance premiums in attracting enrollees. In addition, the State will set and enforce annual global limits on the rate-

of-increase in health care costs. Cost targets will be gradually ratcheted down from current rates of health care cost inflation. The rate-of-increase limit falls from CPI + 6.5 percent in 1994 to CPI + 2.6 percent in 1998. Each ISN is subject to an overall limit on the rate-of-increase in its costs equal to the state growth target, and faces sanctions if it violates this limit. Cost increase limits will be adjusted by the Commissioner of Health for changes in the health status of an insurer's enrolled population.

RAPO provider fee schedules are subject to statewide volume performance standards. If spending exceeds targets, next year's fee updates are reduced to contain spending. Other providers (such as, home health agencies) are subject to rate-of-increase limits on charges. The MinnesotaCare legislation does not currently provide measures for controlling the state's spiraling Medicaid budget although the most recent legislation mandates that the Commissioner of Health must establish a rate methodology for Medicare and Medicaid risk contracting that takes into account statewide growth limits.

To limit the cost inflationary effects of technology, the reform package creates Designated Centers of Excellence which specialize in high-cost treatments. By achieving economies of scale, it is hoped that these Centers will be a cost-effective alternative for providing expensive treatments to Minnesota residents. The legislation also requires providers to inform the Minnesota Health Care Commission (see section 8.3.1.8 below) about technology purchases over $500,000. This provision replaces an earlier one that required a Determination of Need for high-cost technology.

8.3.1.6 How Does The System Ensure Access to Health Care? The Commissioner of Health will designate Essential Community Providers (ECPs) that serve uninsured, high-risk, and special needs populations. A health plan must offer a provider contract to any ECP located within its service area. Minnesota also contemplates requiring each ISN to serve all residents of the geographic service area it chooses. For example, it could contract with medical providers in all regions of its service area. Health plans are also required to enroll publicly funded clients.

8.3.1.7 How will the Health Insurance Industry be Affected? By 1997, Minnesota health insurers are required to offer and renew insurance policies to all Minnesota residents on a "guaranteed issue" basis; that is, insurers must enroll anyone who desires to purchase their policy. Underwriting for medical risk factors, gender, and marital or employment status, is prohibited. Pre-existing condition exclusions are prohibited, except for a resident who has not maintained continuous insurance coverage, and even then, the exclusion cannot last longer than 12 months. By July 1996, insurers are to adopt modified community rating, defined as limiting variations in health insurance premiums, to: (1) for age, 15 percent of the index (average) rate; (2) for factors other than age, 7.5 percent of the index (average) rate. Voluntary purchasing pools can be established through which employers or individuals can negotiate and purchase health insurance. All members of a pool must share some common factor, such as living in the

same geographic area or being employed in similar occupations, in order to qualify. Acceptable common factors are determined by the Commissioner of Health.

A Reinsurance and Risk Adjustment Association was to be created July 1, 1994, with participation mandatory for all health insurers. Reinsurance must be purchased for each enrollee beginning January 1995. The Association will develop methods of balancing different levels of risk across health plans, and developing risk-based payments for health plans that enroll high-risk individuals.

8.3.1.8 Who Develops and Administers the System? An independent commission has played an important role in developing a health reform plan for Minnesota. The Minnesota Health Care Commission is a 25-member body representing consumers, employers, labor unions, providers, health insurers, and other major stakeholders. It was created by the 1992 MinnesotaCare Act to develop a comprehensive health care cost containment plan which would slow the rate of growth of public and private health care costs by at least 10 percent each year for the next 5 years. The Commission forwarded a plan to the Minnesota legislature, which enacted it as the MinnesotaCare Act of 1993.

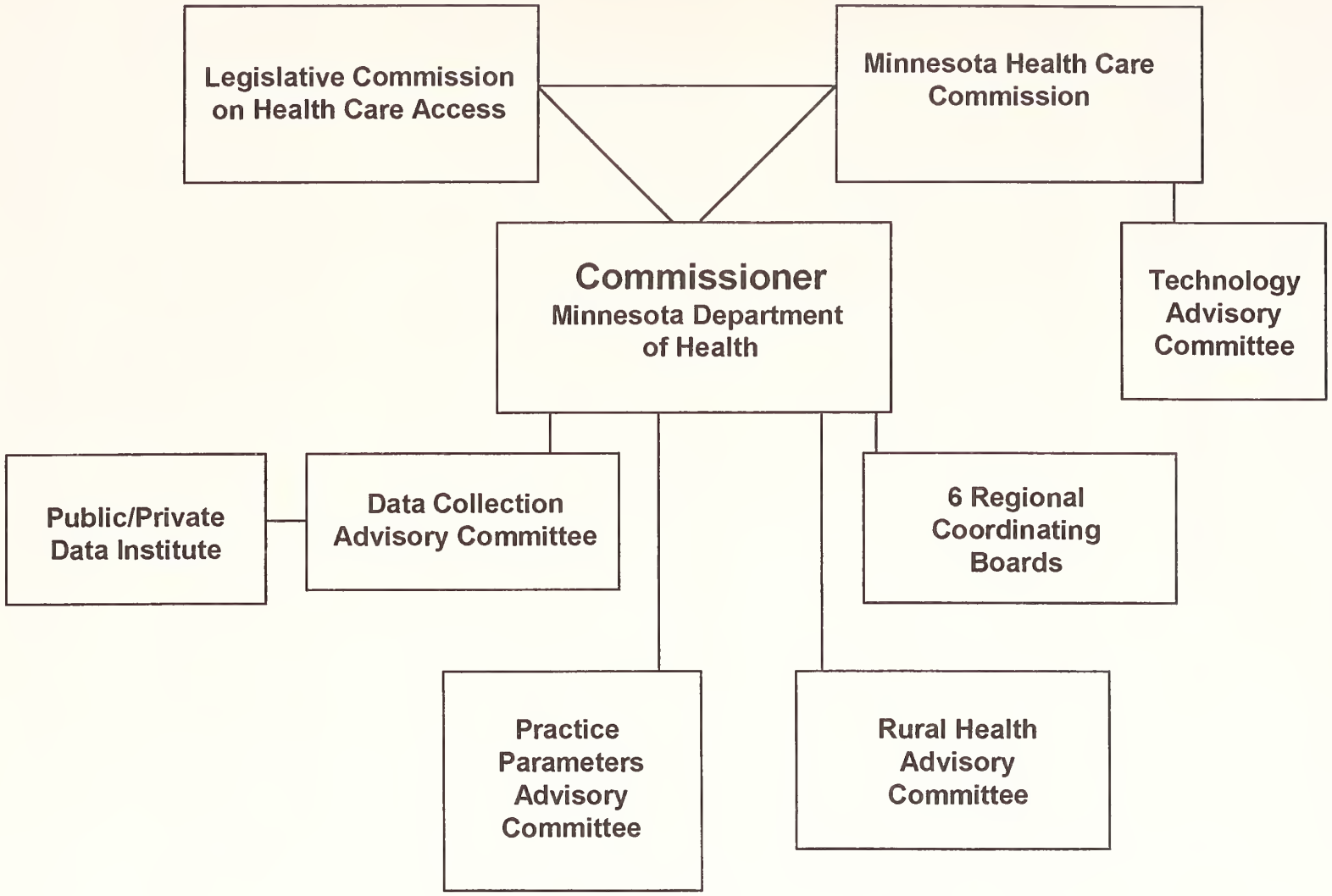
The system will be administered by the state Department of Health, headed by the Commissioner of Health. The Department licenses ISNs and RAPO insurers and performs regulatory functions. A statewide Data Institute, which is a public-private partnership, will collect data from all health plans and providers to measure statewide health expenditures and support regulatory initiatives (such as, fee setting under the RAPO). Also, it will collect data to allow cost and quality monitoring. Six Regional Coordinating Boards provide regional input, a Practice Parameters Advisory Committee develops guidelines to avoid unnecessary and ineffective treatments, and a Rural Health Advisory Committee makes recommendations on rural health care. See Figure 8-1.

8.3.2 Integrated Service Networks (ISNs) Under Health Care Reform

ISNs are a prepaid (capitated) integrated health care insurance and delivery system, intended to represent a further evolution of today's HMOs. ISNs are envisioned as large insurer-provider networks offering comprehensive preventive and remedial care. ISNs may be formed by HMOs, other insurers, hospitals or other providers, governments, or combinations of these entities. Formation of ISNs will begin not earlier than July 1996. ISNs must be nonprofit and domiciled in Minnesota. ISNs are limited to five health insurance packages with different levels of cost sharing to promote comparability. The state will collect and disseminate extensive data on ISN outcomes and consumer satisfaction to allow quality comparisons.

Community ISNs, or CISNs, are small ISNs limited to fewer than 50,000 members, that will operate under local control. To encourage their formation, CISNs will operate under special provisional

Figure 8-1
Role of Advisory Panels in Minnesota Health Care Reform



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status from 1994 to 1997, licensed by the Commissioner of Health. Minnesota is waiving several administrative, reporting, and net worth requirements for today's HMOs that may serve as entry barriers to the small, community-based CISNs. A CISN might be established, for example, by a neighborhood hospital. CISNs are particularly targeted for rural Minnesota.

8.3.3 Regulated All-Payer Option (RAPO) Under Health Care Reform

The primary purpose of the RAPO is to limit prices, expenditures, and premiums for care provided outside of the ISN sector. The RAPO will be established through rulemaking by the Commissioner of Health, advised by a committee of health care professionals affected by it. The centerpiece of the RAPO is provider fee schedules. All RAPO insurers must pay at the uniform fee schedule; no discounting is allowed. Balance billing is prohibited for all patients, including Medicare enrollees and self-pay patients. Other elements are a uniform billing system to reduce administrative costs, and volume-performance standards to control expenditures. The phase-in of the RAPO was to begin in 1994 and be completed by 1997.

8.3.3.1 DRG Fee Schedule for Hospitals. The RAPO hospital fee schedule is based on Medicare's diagnosis-related-groups (DRGs). However, Minnesota intends to use an extension and refinement of Medicare's DRGs, known as the "All-Patient Refined DRGs", or APR-DRGs. The APR-DRGs are an outgrowth of the "All Patient" or AP-DRGs (also known as the "New York" DRGs). These DRGs were developed by the State of New York and 3M Company to address limitations in the Medicare DRGs for a nonelderly population. The AP-DRGs expand classification of such diagnoses as pediatric conditions and AIDS. The APR-DRGs the APR-DRGs, developed by 3M and the National Association of Children's Hospitals, account for severity differences among patients within a DRG and have 1,437 categories.

8.3.3.2 Adjustments to DRG Rates. Payment rates under RAPO will be standardized on a statewide basis, based on hospital cost data for operating and capital expense, adjusted for area wage rates, consistent with the overall growth target for spending. Adjustments for graduate medical education and uncompensated care will be considered. Self-pay patients with short or low-cost stays will be charged less, a feature to be phased out when universal coverage is achieved.

8.3.3.3 Charge-Based Payment to Small, Rural Hospitals. Minnesota is concerned that small rural hospitals are subject to excessive financial risk under a DRG-based payment system because of their

small caseloads. Thus, the Minnesota health reform envisions paying "sole community hospitals" reasonable charges subject to rate-of-increase limits. Criteria for sole community hospitals are:

- 40 beds or less.
- Net income losses for the two most recent years.
- Eligible for Federal sole community provider designation, or located in a community of less than 5,000 population and located more than 25 miles from a like hospital.
- Demonstration of local support.

Only 17 of 145 Minnesota hospitals currently qualify under this definition.

8.3.3.4 Payment Method for Hospital Outpatient Services. RAPO's mode of payment for hospital outpatient services is uncertain at this time. The Commissioner of Health was instructed to review various methods and make recommendations by January 1, 1995. Ambulatory Patient Groups (APGs) are among the methods to be reviewed.

8.3.3.5 Fee Schedule for Physicians and Independent Providers. The Commissioner of Health will adopt a Minnesota-specific fee schedule based on the Medicare resource-based relative value scale (MRBRVS) to reimburse physicians and other independent providers. The Medicare relative values will be adjusted to reflect Minnesota-specific health care costs; that is, a conversion factor will be calculated using Minnesota claims data. Payment rules for services not included in Medicare's fee schedule have not yet been determined. Also to be determined is whether nonphysician providers will be paid at the full fee schedule rate, or at a fractionated rate.

8.3.3.6 Statewide Volume Performance Standard To Limit Rate Increases. Minnesota is concerned about the potential use of DRG upcoding or increases in admissions as means of raising inpatient expenditures under the proposed per-case hospital payment system. Similarly, rising volumes of physician and outpatient services could cause those expenditures to rise faster than desired by the state. To ensure that cost containment goals are met, the annual increase in payment levels for DRGs and for physician/outpatient services will be adjusted by a statewide volume performance standard. If either inpatient or physician/outpatient spending exceeds its target, fee updates will be adjusted downwards in the second following year to offset the excess expenditures. The Health Commissioner may reallocate spending limits between the inpatient hospital services volume standard, and the physician and outpatient services volume performance standard.

8.3.3.7 User Fee on Insurers. The RAPO will include a "user fee" on insurers to cover the costs of starting up and administering the RAPO payment schedule, standardized utilization review, quality monitoring, and other administrative and regulatory functions provided for the RAPO option. Further assessments may be imposed on the RAPO insurers to fund public health goals, such as, serving high-risk and special needs populations.

8.4 PROBLEMS, UNRESOLVED ISSUES, COMMENTS OF STAKEHOLDERS

8.4.1 ERISA

A major unresolved problem in Minnesota's health reform efforts is ERISA. Many large firms self-insure and would be outside the reach of the RAPO system. The State feels that it must get a preemption of ERISA to make its reform work. State legal personnel think that the McCarran-Ferguson Act that assigns regulation of insurance to the states is inconsistent with ERISA, which limits regulation of employee benefits to the Federal Government. Another major limitation from the State's point of view is that it cannot regulate Medicare. It eventually would like to get a Medicare waiver and fold Medicare into its system.

8.4.2 Risk Adjustment

Minnesota intends to use risk adjustment to adjust for systematic differences in risk among health plans, backed up by reinsurance to account for random high-cost cases. However, the exact mechanisms and financial stability of these systems have yet to be determined. Insurers are concerned that risk adjustment will not be accurate enough to limit their financial risk, given the twin requirements of guaranteed issue and community rating; that is, the requirement that all comers must be enrolled at the same rates. The system of cross-subsidies among health plans to adjust for differences in the risk of their enrollee mix has not been worked out. Also, risk adjustments will be crucial to avoid "dumping" of patients by the ISNs into the RAPO or public sector.

8.4.3 Financing

The source of funds for subsidies to individuals to purchase insurance has not been determined. Subsidies of low-income individuals will be necessary given the individual mandate to purchase insurance. An employer mandate or broad-based taxes (income, sales) are two possible sources of funds. Minnesota intends to closely monitor the national debate on financing health care reform.

8.4.4 Providers' Versus Insurers' Perceptions of the RAPO

Medical providers generally support the all-payer RAPO system. They like the protection from managed care and network discounting that the RAPO offers. Providers feel that although they may not do extremely well in the RAPO, they would obtain enough revenues to survive. They are much less certain of their fortunes under managed care discounting. On the other side, commercial insurers do not like the RAPO. They feel that they are being "marginalized" and that their hands are tied by the RAPO. They would like to manage care and obtain fee discounts from providers, which would be prohibited by RAPO. HMOs are concerned that if the RAPO fees are set too low, RAPO insurers could gain business from them.

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GLOSSARY

Access: The ability to obtain needed medical care.

AHE: Average hourly earnings.

AIDS: Acquired immune deficiency syndrome.

All-Payer Rate Setting: Rate setting by a state for health care services that covers all payers. In actuality, the term is often used to refer to systems covering several payers, but not all.

APA: Administrative procedure act. State acts which establish rulemaking procedures for legislative rules and which govern if the enabling statute is silent.

ASA: American Society of Anesthesiology.

Assignment: When a physician accepts assignment, he or she accepts the Medicare allowable fee as payment in full with no balance billing and takes responsibility for collecting from the government.

Average length of stay (ALOS): Average number of patient days per inpatient for a given period.

Balance billing: Billing the patient (or supplemental insurer) directly for shortfalls in insurer reimbursement.

Base rate: Hospital payment amount for typical patient before any add-ons for extraordinary costs, etc.

Beneficiary: A person who is eligible for or receiving benefits under an insurance policy or plan. The term is commonly applied to individuals receiving benefits under the Medicare or Medicaid programs or covered under a private health insurance plan.

Benefit package: Services covered by a health insurance plan and the financial terms of such coverage, including cost sharing and limitation on amounts of services. See Cost sharing, Standard benefit package.

Benefit period: Period over which benefits are payable under a plan or insurance contract. Alternatively, a period for satisfying a deductible requirement, usually referred to as an "accumulation period."

Blue Cross/Blue Shield (BC/BS): The Blues provide nonprofit health insurance to millions of Americans. Operating at the state and city levels, the Blues dominate third-party insurance reimbursement in many geographic areas because of their ability to offer reduced rates through negotiated discounts with health care providers. Blue Cross coverage was designed to provide protection against hospital costs; Blue Shield was designed to cover physician expenses and other costs.

BMAD file: Part B Medicare annual data, including summarized claims history of all beneficiaries. Since replaced by Natural Claims History file.

Budget neutrality: In establishing a new payment system (or changes in an existing system), keeping expected total outlays unchanged from one period to another.

Bundling: The use of a single payment for a group of related services. See Global bundled payment.

Capitation: A health insurance payment mechanism in which a fixed amount is paid per person to cover services; a fixed per-capita payment.

Carrier: A private contractor that administers claims processing and payment for Part B services. See Supplementary medical insurance.

Case mix: The relative frequency of different medical conditions or diagnoses among patients.

Certificate of Need (CON): Regulatory process that certifies the need for medical equipment or building in a given geographic area.

CHAMPUS: Civilian Health And Medical Program For The Uniformed Services.

Claim: The request for reimbursement from an insurer or plan for a covered expense.

Claims data: Data derived from medical providers' claims to third-party payers.

Clinical data: Data on patients derived from clinical examination and tests.

Coding: A mechanism for identifying and defining physicians' services. See Current procedural terminology (CPT).

Coinsurance: A type of cost sharing where the insured party and insurer share payment of the approved charge for covered devices in a specified ratio after payment of the deductible. Under Medicare Part B, the beneficiary pays coinsurance of 20 percent of allowed charges. See Copayment, Cost sharing, Deductible.

Community rating: A method for establishing health insurance premiums whereby an insurer's premium is the same for all individuals in a premium class within a specific geographic area. See Premium.

Comorbidities: Diseases or conditions present at the same time as the principal condition of a patient.

Complications: Adverse patient conditions that arise during the process of medical care.

Comprehensive surgical procedure: Any surgical procedure that reflects required resources for all its component procedures.

Conversion factor: The multiplicative factor used to translate relative value units into dollar amounts for physician payments under a fee schedule.

Conversion factor update: Annual percentage change in each Medicare Fee Schedule conversion factor, established by the Congress or the default formula under Volume Performance Standards.

Copayment: A type of cost sharing where the insured party is responsible for paying a fixed dollar amount per service. Sometimes used more generally as a synonym for cost sharing. See Coinsurance, Cost sharing, Deductible.

Cost sharing: A health insurance policy provision that requires the insured party to pay a portion of the costs of covered services. Deductibles, coinsurance, copayment, and balance bills are types of cost sharing. See Coinsurance, Copayment, Deductible.

Cost shifting: A situation wherein a health care provider compensates for the effect of lower revenue from one payer by increasing charges to another payer.

Coverage: The types and amounts of benefits provided under a plan, or an insurance contract.

Coverage decision: A decision by a health plan or insurer whether to pay for or provide a medical service or technology for particular clinical indications.

Covered expenses: An expense for which a health care plan will provide reimbursement.

CPI: Consumer Price Index.

CPI-U: Urban Consumer Price Index.

CRNA: Certified Registered Nurse Anesthetist.

Current Procedural Terminology (CPT): The coding system for physicians' services developed by the CPT Editorial Panel of the American Medical Association; basis of the Medicare HCPCS coding system for physicians' services. See Coding.

Customary charge: One of the screens previously used to determine a physician's payment for a service under Medicare's Customary, Prevailing, and Reasonable payment system. Customary charges were calculated as the physician's median charge for a given service over a prior 12-month period. See Customary, Prevailing, and Reasonable.

Customary, Prevailing, and Reasonable (CPR): The method of paying physicians under Medicare from 1965 until implementation of the Medicare Fee Schedule in January 1992. Payment for a service was limited to the lowest of (1) the physician's billed charge for the service, (2) the physician's customary charge for the service, or (3) the prevailing charge for that service in the community. Similar to the Usual, Customary, and reasonable system used by private insurers. See Customary charge, Medicare Fee Schedule, Prevailing charge.

Deductible: A type of cost sharing where the insured party pays a specified amount of approved charges for covered medical services before the insurer will assume liability for all or part of the remaining covered services. See Coinsurance, Copayment, Cost sharing.

Diagnosis-Related Groups (DRGs): A system of classifying patients on the basis of diagnoses for purposes of payment to hospitals. See Prospective Payment System.

Direct costs: The labor, supply, and equipment costs directly attributable to the provision of a specific service. See Indirect costs.

Direct medical education (DME): A Medicare Part A payment made to teaching hospitals. Payments are made as an amount per resident. The per-resident amount per hospital is derived from base year costs comprising residents' salaries and benefits, teaching physicians' salaries, and other related administrative and overhead costs. Per-resident amounts are updated annually by the urban consumer price index.

Discharge abstract: A summary of data abstracted from a hospitalized patient's medical record that usually includes specific clinical data such as diagnostic and procedures codes as well as other information about the patient, the physician, and insurance and financial status.

Discretionary adjustment factor (DAF): ProPAC's term for the elements used to update Medicare's Hospital Prospective Payment System DRG rates.

Disproportionate share hospital: A hospital receiving additional payments because it serves a disproportionate percentage of low-income and Medicaid patients.

DRG grouper: A computerized set of software algorithms using diagnostic and procedure codes to classify patients into Diagnosis Related Groups.

DRI: Data Resources, Inc.

Dumping (Patient dumping): Avoidance of extremely costly cases by hospitals.

ECI: Employment Cost Index of the U.S. Bureau of Labor Statistics.

Eligibility: An insured person's eligibility for benefits. Typically, a period of time must elapse before benefits become payable under a disability or health plan for the onset of a covered illness.

ERISA: Employee Retirement Income Security Act of 1974. Primarily enacted to effect pension equality, ERISA also contains provisions to protect the interests of group insurance plan participants and beneficiaries. It exempts self-insured employers from state regulations of health insurers.

Exclusions: Specific illnesses or treatments that are expressly not covered by a plan or insurance contract.

Experience rating: A system used by insurers to set premium levels based on the insured's past loss experience. For example, rating may be based on service utilization for health insurance or on liability experience for professional liability insurance. See Community rating.

Fee for service: A method of paying health care providers for individual medical services rendered, as opposed to paying them salaries or capitated payments. See Capitation.

Fee schedule: A list of predetermined payments rates for medical services. See Medicare Fee Schedule.

FPL: Federal poverty limit.

Gaming: Gaining advantage by using improper means to evade the letter or intent of a rule or system.

Geographic adjustment factor (GAF): An index summarizing the prices of staffing and other resources required to provide physicians' services in an area relative to national average prices. The GAF is based on three components that reflect the opportunity cost of physician work, practice expense, and malpractice expense. See Geographic practice cost index.

Geographic practice cost index (GPCI): Price adjusters applied to the three components of the Medicare Fee Schedule #OBRA-89, to determine the correct payment in each fee schedule payment area. As defined in OBRA-89, there is a geographic practice cost index for each component of the Medicare Fee Schedule: physician work, practice expense, and malpractice expense. See Geographic adjustment factor, Medicare Fee Schedule.

Global bundled payment: A fixed amount payment for several different services. Differs from capitation in that specific services or conditions are the payment units.

Global service: A package of clinically related services treated as a unit for purposes of billing, coding, or payment.

Graduate medical education (GME): The period of medical training that follows graduation from medical school; commonly referred to as residency, internship, and fellowship training.

Guaranteed issue: All insurers must be enrolled in health plans at the same rate.

HCA: Hospital Corporation of America.

HCFA: Health Care Financing Administration.

HCPCS: HCFA Common Procedure Coding System. A Medicare coding system based on Level I, II, and III codes.

Health Maintenance Organization (HMO): A type of managed care health plan that acts as both insurer and provider of a comprehensive set of health care services to an enrolled population. Benefits are financed by prepaid premiums with limited copayments, and services are provided through a system of affiliated providers. HMOs are sponsored by large employers, labor unions, medical schools, hospitals, medical clinics, and insurance companies. Development of HMOs was spurred by the Federal Government in the 1970s as a means to correct the structural, inflationary problems with conventional health care payment. See Managed care, Health plan.

Health Plan: An organization that acts as insurer for an enrolled population; may be structured as a fee-for-service or managed care plan. See Fee for service, Managed care, Point-of-service plan.

Indirect Medical Education (IME): An add-on payment to Medicare per-case PPS payments that varies by hospital according to its resident-per-bed ratio, which is a parameter in the IME equation. IME payments are designed to cover hospitals' increased operating costs that are associated with offering residency programs, but are not directly identifiable. See also Direct medical education.

Indirect costs: Those costs that cannot be easily traced to particular services, but which must be assigned using explicit accounting methods. Sometimes referred to as common or overhead costs. See Direct costs.

Inpatient care: Medical services provided to patients who have been admitted to hospitals.

Input prices: The prices of labor, capital and supplies needed to produce something, e.g., health care services.

Intensity of service: The quantity of health care services per enrollee, taking into account both the number and the complexity of the services provided.

Level I, II, III codes: Level I codes are the AMA's CPT codes, which are five-digit codes. CPT codes, descriptions and/or guidelines are copyrighted by the AMA. Level II codes are alphanumeric codes for services not included in the CPT (such as durable medical equipment, ambulance services, artholics and prosthetics, dental and vision care services, and ESRD-related services) and begin with a alpha character ranging from "A" through "V." Level II codes are maintained jointly by HCFA, the Health Insurance Association of America, and the National Blue Cross and Blue Shield Association. Level III codes are for physicians and nonphysician services that are not included in Level I or II codes. Level III codes begin with the letter W, X, Y, or Z, and are carrier specific.

Licensure: The process by which a state grants permission to a physician to practice medicine upon finding that she or he has met acceptable qualification standards. Licensure also involves ongoing state regulation of physicians, including the state's authority to revoke or otherwise restrict a physician's license to practice.

Loaded rate: Rate based usually on direct costs or outlays, adjusted upwards for overhead and administrative costs.

Malpractice expense: The cost of professional liability insurance incurred by physicians. A component of the Medicare relative value scale. See Relative value scale.

Managed care: Any system of health service payment or delivery arrangements where the health plan attempts to control or coordinate use of health services by its enrolled members in order to contain health expenditures, improve quality, or both. Arrangements often involve a defined delivery system of providers with some form of contractual arrangement with the plan. See Health Maintenance Organization, Preferred Provider Organization.

Managed competition: An approach to health system reform in which health plans compete to provide health insurance coverage for enrollees. Typically, enrollees would sign up with a health plan purchasing entity and would be offered a choice of health plans during an open season. See Health plan.

Market basket: A collection of inputs to hospital care, e.g., wages, utilities, drugs, used to track increases in hospital costs of providing care.

Medicaid: A program of Federal matching grants to the states to provide health insurance for categories of the poor and medically indigent. States determine eligibility, payments, and benefits consistent with Federal standards.

Medical malpractice: A judicial determination that there has been negligent (or, rarely, willful) failure to adhere to the current standards of medical care, resulting in injury to the patient. Since the judgment of malpractice is social-legal and is made on a case-by-case rather than systematic basis, standards and processes for determining malpractice vary by area.

Medical record: The account compiled by physicians or other medical professionals of patients' medical history, present illness, findings on examination, details of treatment, and notes on progress. The medical record is the legal record of care.

Medical technology: The drugs, devices, and medical and surgical procedures used in medical care, and the organizational and support systems within which such care is provided.

Medicare: A Federal program of medical care benefits, generally for those over age 65. See also Part A and Part B.

Medicare Fee Schedule (MFS): The resource-based fee schedule currently used by Medicare to pay for physicians' services. Replaced the CPR payment method. See Customary, Prevailing and Reasonable; Resource-based relative value scale; Conversion factor; Geographic adjustment factor.

Medigap insurance: Private health insurance policies designed to supplement Medicare coverage. Benefits may include payment of Medicare deductibles, coinsurance, and balance bills, and payment for services not covered by Medicare.

MEI: Medicare economic index. Measures changes in physicians' practice cost and earnings, and the relationship between actual increases in Medicare Part B spending and MVPS (See).

Modifier: An additional coding element that permits payment to differ for a subset of services billed under a code.

MVPS: Medicare volume performance standards. A provision of OBRA-89, designed to control the growth in physician service by limiting the annual growth in the conversion factor. The conversion factor is based on changes in the Medicare economic index. See MEI.

Nonparticipating physician: A physician who does not sign a participation agreement and, therefore, is not obligated to accept assignment on all Medicare claims. See Assignment and Participating physician.

OBRA: Omnibus Budget Reconciliation Act.

Outcome: The consequence of a medical intervention on a patient.

Outlier: A patient whose length of stay or cost deviates considerably (e.g., usually more than two standard deviations) above or below the length of stay or costs of the typical patient.

Outpatient care: Care that is provided in a hospital and that does not include an overnight stay.

Overvalued procedure: A procedure for which the payment rate was reduced in legislation because the Congress found it to be overvalued under the previous Medicare payment system.

Paid amount: The portion of a submitted charge that is actually paid, by both third-party payers and the insured, including copayments and balance bills. For Medicare this amount may be less than the approved (allowed) charge if the submitted charge is less, or it may be more because of balance billing.

Part A: The portion of Medicare that covers expenses incurred in hospitals, extended care facilities, hospices, etc.

Part B: The portion of Medicare that covers physicians' services and other types of care not covered under Part A.

Participating physician: A physician who signs a participation agreement, agreeing to accept assignment on all Medicare claims for one year. See Assignment.

Payment or payer differential: Difference in amounts paid to a given hospital for a given DRG. See DRG.

Payment rate: The total amount paid for each unit of service rendered by a health care provider, including both the amount covered by the insurer and the consumer's cost sharing. For Medicare payments to physicians, this is the same as the approved (allowed) charge.

Peer Review Organization (PRO): An organization contracting with HCFA to review the medical necessity and quality of care provided to Medicare beneficiaries; formally called Utilization and Quality Control Peer Review Organization.

Point-of-service plan: A managed care plan that combines features of both prepaid and fee-for-service insurance. Health plan enrollees decide whether to use network or non-network providers at the time care is needed and usually are charged sizable copayments for selecting the latter. See Health plan, Health Maintenance Organization, Preferred Provider Organization.

PPI: Producer Price Index of the U.S. Bureau of Labor Statistics.

Practice guideline: An explicit statement of what is known and believed about the benefits, risks, and costs of particular courses of medical action. Intended to assist decisions by practitioners, patients, and others about appropriate health care for specific clinical conditions.

Preferred Provider Organization (PPO): A managed care plan that contracts with networks or panels of providers to furnish services and be paid on a negotiated fee schedule. Enrollees are offered a financial incentive to use providers on the preferred list, but may use non-network providers as well. See Managed care.

Premium: An amount paid periodically to purchase health insurance benefits.

Prevailing charge: One of the screens that determined a physician's payment for a service under the Medicare CPR payment system. In Medicare, it was the 75th percentile of customary charges, with annual updates limited by the MEI. See Customary charge; Customary, Prevailing, and Reasonable; Medicare Fee Schedule.

Principal diagnosis: The diagnosis which, after study, is judged to be the principal reason for hospitalization or other medical care.

ProPAC: Prospective Payment Assessment Commission.

Prospective Payment System (PPS): The Medicare system used to pay hospitals for inpatient hospital services, based on the DRG classification system. See Diagnosis-Related Groups.

Quality assessment: Measurement and evaluation of the quality of medical care for individuals, groups, or populations.

Quality assurance: A formal, systematic process to improve quality and appropriateness of care. It includes monitoring quality, identifying inadequacies and excesses in delivery of care, and correcting those problems.

Rate setting: An approach to cost containment whereby the government establishes payment rates for various categories of health services. Distinct from managed care, in which individual payers negotiate own rates.

Rebasing: Recalculating the average standardized hospital payment amount based on more current hospital cost data.

Rebundling: Reaggregating physician services that were billed separately into a more global payment rate.

Reinsurance: An insurance arrangement where an insurer pays a premium into a pool, and any claims paid by the insurer above a predefined dollar level are covered in whole or in part by the pool.

Relative value scale (RVS): An index that assigns weights to each medical service; the weights represent the relative amount to be paid for each service. The RVS used in the development of the Medicare Fee Schedule consists of three cost components: physician work, practice expense, and malpractice expense. See Malpractice expense, Medicare Fee Schedule, Resource-based relative value scale.

Resource-based relative value scale (RBRVS): A relative value scale that is based on the resources involved in providing a service. See Relative value scale.

Risk adjuster: A measure used to adjust payments made to a health plan on behalf of a group of enrollees in order to compensate for expenses that are expected to be lower or higher than average, based on the health status of the enrollees.

Risk selection: Any situation where health plans differ in the health risk associated with their enrollees as a result of enrollment choices made by health plans or enrollees, that is where one group's or health plan's expected costs differ from those of another group or health plan.

RUC: Relative Value Scale Update Committee of American the Medical Association/Special Society. Established to develop new RVUs for new and revised CPT codes and review existing RVUs. See CPT and RVU.

RVU: Relative value units or resource inputs. One component of a resource-based relative value scale that weights services according to their relative costliness or work effort.

Severity modifier: An adjustment that reflects the effect of patient factors, such as severity of illness, comorbidity, or risk of complications, or the relative work required to deliver a service.

Site-of-service differential: The difference in the amount paid when the same service is performed in different practice settings, for example, an outpatient visit in a physician's office or a hospital clinic.

Specialty differential: A difference in the amount paid for the same service performed by physicians in different specialties. Eliminated from Medicare effective 1992.

Standard benefit package: A defined set of health insurance benefits that all insurers are required to offer. See Benefit package.

Standardized amount: The average cost (or payment) for the typical hospital inpatient, usually derived by dividing hospital cost for discharge by case mix and other indices to make costs more comparable.

Supplier: A provider of health care services, other than a practitioner, that is permitted to bill under Medicare Part B. Suppliers include independent laboratories, durable medical equipment providers, ambulance services, orthotists, prosthetists, and portable X-ray providers.

TEFRA: Tax Equity and Fiscal Responsibility Act of 1982. TEFRA was enacted to prevent discrimination against elderly employees with regard to health insurance. It amended the Social Security Act to make Medicare secondary to employer group health plans for active employees and spouses aged 65 through 69. The Act also authorized a new method of paying for hospital services based on a per-case ceiling payment for each provider.

Third-party payment: Payment by a private insurer or government program to a medical provider for care given to a patient.

Trimpoint: The cost per case or length of stay at which an outlier is defined. Usually based on standard deviations from the mean.

UB82: Hospital uniform billing form, revised in 1982, and used to bill Medicare, Medicaid, and other insurers.

Unbundling: The act of billing separately for services previously included in a broader bill.

Underinsured: Having insufficient medical insurance coverage.

Upcoding: A form of code gaming also known as code creep, where a medical procedure is redefined so that it falls into a billing category which qualifies for a higher reimbursement.

Updating factor: Percentage increase in regulated rates.

Usual, Customary, and Reasonable (UCR): A method used by private insurers for paying physicians based on charges commonly used by physicians in a local community.

Utilization Review (UR): The review of services delivered by a health care provider or supplier to determine whether those services were medically necessary; may be performed on a concurrent or retrospective basis.

Volume corridor: A predetermined percentage range of changes in hospital dischargcs or patient days, e.g., minus 5 percent to plus 10 percent, within which adjustments to payment rates are not made.

Volume performance standards: Estimates of the annual rate of growth for Medicare physician services. The relationship of these estimates to actual experience will be used in adjusting Medicare physician fees.

Wage differentials: Differences in wages across areas or occupations.

Waiver: In rate setting, a special exemption granted by Medicare, which enables a state to include Medicare in the state rate setting system.

Workers' Compensation: State programs that require employers to carry insurance to compensate employees for work-relate injuries or disabilities.

APPENDICES

APPENDIX A
OCCUPANCY ADJUSTMENTS

An occupancy adjustment is based on the ratio of actual occupancy to an "ideal," or target, occupancy rate. If actual occupancy equals or exceeds the target occupancy, all of the hospital's allowable capital costs are reimbursed. If actual occupancy falls short of the target, say by 20 percent, then capital reimbursement is reduced 20 percent. The "ideal" occupancy rate for a hospital is calculated from a desired turnaway probability (the probability that a patient desiring admission will be "turned away" because a hospital is full) stratified by hospital bedsize. The target occupancy rate is lower for smaller hospitals and for lower desired turnaway probabilities (see Table A-1).

The occupancy adjustment could be administered in several ways. First, rate setters should apply the occupancy penalty only to beds and fixed equipment costs, as moveable equipment is more easily adjusted to declining volumes. Second, turnaway standards and ideal occupancy rates could be varied depending on the distance to, and capacity of, a hospital's neighbors. Isolated rural hospitals could have a lower threshold occupancy rate (or be exempted altogether) because turnaways represent more serious access problems. The turnaway probability could also be set lower for hospitals serving a higher proportion of emergency patients. Third, if some hospital beds (such as psychiatric or neonatal) are not easily substitutable for others, they could be excluded from computation of the penalty.

In an era of declining inpatient utilization, rate setters should be careful not to "overfund" capital replacement -- especially for inpatient beds. If depreciation is fully funded in the system, as in a cost pass-through, then occupancy penalties address the underutilization problem. On the other hand, they can be administratively burdensome and subject to gaming if hospitals manipulate their reported occupancy to their advantage. For these reasons, prospective per-*case* capital payment policy may be preferable.

TABLE A-1

"IDEAL" OCCUPANCY RATES BY HOSPITAL BED SIZE

	EXPECTED NUMBER OF TURNAWAYS PER 1,000 PATIENT DAYS	
Hospital Bed Size	One	Ten
25	55 %	63 %
50	65	72
75	70	77
100	74	79
150	78	83
200	81	85
250	82	86
300	84	87
400	86	89
500	87	90

NOTE: Percentages in table reflect the average occupancy rate necessary to assure only one or ten patient turnaways (due to 100% occupancy). Higher occupancy rates risk more turnaways.

SOURCE: Calculated based on Poisson model of hospital admissions. See Hemesath and Pope, 1989.

APPENDIX B
SERVICES EXCLUDED FROM THE MEDICARE FEE SCHEDULE

Medicare Noncovered Services. Physician services for which Medicare prohibits payment based upon a national coverage policy decision. It is important to note that until HCFA makes a determination of noncoverage, Medicare carriers have latitude to make individual coverage policy decisions. For noncovered services and carrier-priced services, there will be no relative value units in the Medicare fee schedule. Specific examples include the following:

- Autopsies.
- Cosmetic surgery, including sex transformations.
- Experimental procedures, including intestinal bypass, selected transplants.
- Hearing and hearing aid examinations, hearing aids, fitting of eyeglasses and contact lenses.
- Medical testimony.
- Preventive medical visits and counseling, health risk assessments, ambulatory blood pressure monitoring.
- Nonemergency or emergency transportation.
- Surgical stockings, disposable hygienic products, and personal items.
- Most oral prescription drugs, vitamin B injections, typhus injections, and selected immunizations.

Bundled and Nonincident Services. There are two instances in which no fee schedule payment is made for a Medicare covered service; but rather, the payment for the particular service is bundled into the payment for another covered service. The first instance is when a service is considered as "incident to" a physician service and is furnished on the same day, such as the provision of an ace bandage. Payment for the service is considered bundled into the second service's payment. The second instance is when a service is not considered incident to a physician service, such as the provision of take-home colostomy supplies. In this latter case, payment for the service may be made under other payment provisions of the Medicare law. There are no relative value units in the fee schedule for the following:

- Physician phone consultation and team conferences.

- Post-operative follow-up visit within global fee period.
- Specimen handling.
- Special reports.
- Colostomy supplies.
- Elastic wraps.
- Electrodes and lead wires for apnea monitoring, electrocardiograms, etc.
- Indwelling catheters and supplies.
- Sterile and nonsterile bandaging supplies.
- Syringes, needles, and miscellaneous injection supplies.

Injection services (SQ, IM, IV)[1], do have RVUs (90782, Injection (SC)/(IM); 90784, Injection (IV), but are not reimbursable if the physician is paid for any other services rendered at the same time.

Services Excluded by Regulation or Statute. Services may be excluded from the physician fee through regulations promulgated by HCFA or by statute, that is, services not considered physician services under Medicare fee schedule law. These services do not have relative value units. When covered by Medicare, payment is made using the reasonable charge methodology, or other fee schedules. These services are:

- Removal of donor organs.
- X-ray consultation.
- Majority of clinical diagnostic laboratory tests.
- Majority of immunizations.
- End-stage Renal Disease (ESRD) related services, including physician outpatient maintenance dialysis services and dialysis training.
- Ambulance services.
- Immobilization devices such as splints, slings, cast supplies (used for reduction of fractures).
- Majority of miscellaneous minor medical/surgical supplies.
- Nonprescription drugs.

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[1] SQ is subcutaneous; IM is intramuscular; and IV is intravenous.

- Services provided by noncertified therapists.
- Injectable drugs that are not self-administrable, including chemotherapeutic agents and EPO.
- Blood products.
- Travel for laboratory products.
- Routine venipuncture and specimen collection through catheterization.
- Eyeglasses and contact lenses, and selected intraocular lenses.
- Durable medical equipment.
- Enteral and parenteral equipment.
- Prosthetics and orthotics.

Unlisted Procedure Codes, Local Codes and Restricted Coverage Services. HCFA relies upon Medicare carriers to establish RVUs and payment amounts for three types of services. The first type of services is unlisted CPT procedure codes, i.e., CPT codes that typically end in "99," and services for which HCFA has not established RVUs, typically low-volume services. These services require case-by-case review of pertinent medical information by the carrier. The second type of services consists of local codes, or those services for which there is no nationally recognized procedure code. The third type of services consists of restricted coverage services, whereby special coverage instructions apply that require carrier review. Oral surgical services and speech, language, and dysphagia screening are frequently occurring services within this latter category.

Medicare carriers are instructed to price these services by assigning the same relative value units as those of the "closest comparable service," although payment amounts for some services continue to be based upon reasonable charge data. In 1992, carriers were requested to price roughly 700 national procedure codes. The majority of these codes were dental codes, followed by low-volume procedure codes and "unlisted" codes. For these national codes, there are no national relative value units.

APPENDIX C
ANESTHESIA SERVICES

Medicare recognizes three practice models for anesthesia services.

- Anesthesiologist personally performs the service.
- Certified Registered Nurse Anesthetist (CRNA) personally performs the service.
- Anesthesia team.

Medicare's approach to reimbursement under each model is described below.

Anesthesiologist Personally Performs the Service. The Medicare program considers an anesthesia service as personally performed, for payment purposes, if the physician anesthesiologist personally performs the entire anesthesia procedure or is continuously involved in a single case that involves a CRNA, student anesthetist, intern, or resident. Under the Medicare Fee Schedule (MFS), when the service is personally provided by an anesthesiologist, he or she receives the full payment, which is based on the sum of base and time units for the service. HCFA was directed by statute to develop a uniform relative value guide for paying for physician anesthesia services furnished on or after January 1, 1989. Therefore, in March 1989, HCFA adopted the use of the American Society of Anesthesiology (ASA) Uniform Relative Value Guide and the CPT-4 anesthesia codes for payment; however, it disallowed the further use of payment modifiers to reflect the physical status of the patient (e.g., age, physical health status, unusual factors or circumstances). The time units are developed from the actual time that the anesthesiologist spends with a particular patient. With the implementation of the MFS, HCFA adopted the ASA's recommended definition of anesthesia time. Actual time is converted into time units by dividing through by either 15 or 30 minutes, depending upon whether the anesthesiologist personally performs the service or medically directs a CRNA. For the past several years, anesthesiologists have been required by HCFA to calculate fractional time units by carrying out the division to one decimal place--e.g., 25/15 = 1.7--rather than rounding to whole time units--e.g., 25/15 = 2. Over the past several years, HCFA has consistently indicated its intent to eliminate actual time as a component of anesthesia payment.

The sum of the base and time units is multiplied by a set of anesthesia-specific conversion factors which have been adjusted to account for geographic differences in practice expenses. HCFA believed that it was necessary to create a separate set of conversion factors for anesthesia payment and not fully incorporate anesthesia services into the Medicare fee schedule, because of the retention of the actual time units. An adjustment was made to the set of conversion factors to ensure that the anesthesia fee schedule amounts were consistent with the fee schedule amounts for all other services.

Under current law, anesthesiologists are allowed to receive separate payment for provision of the following specialized services: placement of a Swan-Ganz catheter or central venous pressure lines, emergency intubation, and critical care visits. Payment is allowed when these services are provided in conjunction with the anesthesia procedure, or as an unrelated procedure. In addition, anesthesiologists are reimbursed for monitored anesthesia care on the same basis as other anesthesia services. Monitored anesthesia care involves intraoperative monitoring by a physician, or monitoring of a patient in anticipation of the need for administering general anesthesia. If multiple procedures are performed during one anesthesia session, payment is calculated using the base units of the procedure with the highest base value and the actual anesthesia time of the multiple procedures.

Certified Registered Nurse Anesthetist (CRNA) Personally Performs the Service. A CRNA is allowed to bill for and receive reimbursement directly for the provision of anesthesia services under the Medicare program, but is required to accept assignment on all services billed to Medicare. CRNAs who personally perform anesthesia services without the supervision of an anesthesiologist are considered to be performing nonmedically directed services; while CRNAs who perform anesthesia services under the direct supervision of an anesthesiologist are considered to be providing medically directed services. The latter case will be addressed more fully below under the discussion of payment for anesthesia teams.

The payment methodologies for CRNAs and anesthesiologists who personally perform anesthesia care are similar. CRNAs are now paid on the basis of a percentage of the personally performed service rate for anesthesiologists, in accordance with Section 13516 of OBRA-93.

Prior to OBRA-93, which took effect on January 1, 1994, Medicare applied separate CRNA conversion factors--one set for medically directed services and another set for nonmedically directed services. By 1996, the set of conversion factors for nonmedically directed CRNAs is required by law to equal the set of physician conversion factors, thereby, giving the nonmedically directed CRNA parity with physician anesthesiologists.

When nonmedically directed CRNAs furnish specialized care services as defined above, or pre-anesthetic evaluation and/or consultation services for a patient who does not undergo surgery, payment is made on the basis of the physician fee schedule.

Anesthesia Team. When an anesthesiologist works in conjunction with a CRNA, student nurse anesthetist, resident, or intern, then payment is adjusted to reflect the team provision of services. When an anesthesiologist medically directs two or more concurrent cases, payment to the anesthesiologist is adjusted depending upon whom he or she is supervising. If the anesthesiologist is medically directing two or more cases, with at least one of the cases involving a CRNA or a student nurse anesthetist, two adjustments to the anesthesiologist's payment are made. First, the base units are reduced according to the following formula: for two concurrent procedures, the base unit on each procedure is reduced by 10 percent; for three concurrent procedures, the base units are reduced by 25 percent; and for four concurrent procedures, the base units are reduced by 40 percent. The Medicare program exhibits the medical direction of more than four concurrent cases. The second

adjustment is to the calculation of fractional time units; actual time is divided by 30 minutes, rather than 15 minutes.

Until recently, if an anesthesiologist was directing two concurrent cases involving only interns or residents, then an attending physician relationship existed and the anesthesiologist was paid the full fee. In January 1994, this payment rule was changed so that the attending physician relationship is recognized only when the anesthesiologist is involved in a single procedure with an intern or resident. Payment to the anesthesiologist for the medical direction of two concurrent cases involving only interns or residents is based upon the methodology used for calculating payment for the supervision of CRNAs.

Payment to a medically directed CRNA is based upon the methodology described above for a nonmedically directed CRNA; however, the sum of base and time units is multiplied by the medically directed CRNA conversion factor. Over the past two years, the medically directed CRNA conversion factor was set approximately equal to 70 percent of the nonmedically directed CRNA conversion factor.

Under previous policies, total per-case payment was higher when the anesthesia care was provided by an anesthesia team than when the care was personally performed by a physician or a nonmedically directed CRNA. In response to this situation, Congress mandated a change in the Medicare anesthesia team payment policies. Beginning January 1, 1994, the total per-case payment allowances for anesthesia services provided by an anesthesia team are set at 120 percent of the payment allowances for personally performing physicians. The CRNA and physician anesthesiologist each receive half of the team allowance, or 60 percent of the personally performing physician allowance. Over the next four years, the anesthesia team allowance will be reduced by 5 percent per year. By 1998, the team allowance will be equal to the payment allowance for the personally performing physician. Thus, the payment allowance for both the medically directing anesthesiologist and the medically directed CRNA will equal 50 percent of the payment allowance for the personally performing anesthesiologist.

APPENDIX D
CLINICAL LABORATORY AND PATHOLOGY SERVICES

Another important category of services that a state must decide how to pay is clinical laboratory and pathology services. Medicare payment policies for these services are extremely complex, as payment varies not only by type of service, but also by place of service (institutional versus noninstitutional setting) and by numbers of patients being served. For example, many pathology services are typically rendered in a hospital setting and are considered by law (under Medicare) to be for the general benefit of the hospital population; therefore, the professional services associated with the provision of pathology services are generally reimbursed under Medicare Part A hospital payment rules. However, a pathology service that is directed to an individual patient in a hospital setting is reimbursable under the Medicare Part B physician payment rules.

Currently under the Medicare fee schedule, payment is made for the professional component of selected laboratory and pathology services, and for the technical component of furnishing these services when provided through a laboratory that is independent of a hospital and a physician's office. Of the 1,100 services defined in the Pathology and Laboratory section of the AMA's CPT Manual, fewer than 100 services are recognized as physician services under Medicare law. These covered services are typically referred to as physician pathology services and may be stratified into one of the following four categories of services:

- Surgical pathology services, which include the gross and microscopic examination of organ tissue by a physician.
- Specific hematology, cytopathology, and blood banking services, including examination of abnormal smears, microscopic evaluation of bone marrow aspirations, biopsies and abnormal peripheral blood smears, and analyses of difficult cross matching or suspected transmissible disease of a donor.
- Clinical consultation services.
- Clinical laboratory interpretation services.

Of the remaining 1,000+ services listed in the CPT Manual, most are considered clinical diagnostic laboratory services and, therefore, excluded from the physician fee schedule.
Reimbursement for these services, when provided in a physician's office by an independent laboratory, or by a hospital laboratory for outpatients, is based on Medicare's Clinical Laboratory fee schedule. This fee schedule is set at 60 percent of the prevailing charges of independent laboratories for diagnostic tests. National limits apply to state-level fee schedules. It is not a resource-based relative value scale.

Autopsies and supervisory pathology services are not reimbursable under the physician fee schedule because these services are not included in one of the statutory-specified categories of physician services paid under

the physician fee schedule. However, supervisory pathology services, including autopsies, are reimbursable under the Part A hospital payment methodology, as these "physician" services are generally considered to benefit the hospital as a whole and not an individual patient.

With the implementation of the fee schedule, HCFA developed a new category of services, "clinical laboratory interpretation services," that are reimbursable under the fee schedule. These are services for which it is generally necessary for a laboratory physician to furnish an interpretation of the results. There are three criteria that must be met for a service to be covered:

(1) The service must be requested by the patient's attending physician.

(2) The service must result in a written narrative report in the patient's medical record.

(3) The service must require the exercise of medical judgment by the performing physician.

In 1992, only 15 services were listed as clinical laboratory interpretation services (codes 83020, 83912, 84165, 84190, 85390, 85576, 86255, 86256, 86320, 86325, 86327, 86334, 87164, 87207, 89060). Starting in January 1994, four additional codes were added to the list (84181, 84182, 88371, 88372). For these 19 services, HCFA established RVUs based on work, practice expense, and malpractice. Working in conjunction with a national pathology organization and the Medicare carriers' medical directors, HCFA determined these services to be comparable to services provided during a brief clinical consultation (80500); therefore, the work, practice expense, and malpractice RVUs of procedure code 80500 were assigned to clinical laboratory interpretation services.

In addition, there are circumstances for which reimbursement to physicians may be made for consultative pathology services. Once again, specific criteria must be met for the service to be covered:

(1) The service must be requested by the patient's attending physician.

(2) The service must be related to a test result that lies outside the clinically normal or expected range.

(3) The service must result in a written narrative report in the patient's medical record.

(4) The service must require the exercise of medical judgment by the performing physician.

APPENDIX E
MODIFIERS

Modifiers 22 and 52 - Unusual or Reduced Services. Medicare permits carriers to increase or decrease payment for unusual circumstances. An operative report and a written description of the reason for using the modifier are required. Many Medicare carriers continue to conduct medical review of procedures with these modifiers on a case-by-case basis. A case must be "quite unusual" to receive additional payment and requires each provider to submit an operative report and a written description of the reason for using one of the two modifiers. Payers then will manually price the service.

Modifier 23 - Unusual Anesthesia. Modifier 23 is used by payers to identify claims requiring unusual anesthesia services. An operative report and written description of the reason for using the modifier is required, and the service is manually priced by payers. A state must decide whether or not retain this convention under its RBRVS fee schedule.

Modifier 24 - Unrelated E&M Services by the Same Physician During Postoperative Period. Medicare requires physicians to attach modifier 24 to a global surgery claim for unrelated evaluation and management (E&M) services provided during the postoperative window period by the same physician who performed the surgical procedure. Medicare makes full payment to the provider under these circumstances.

Modifier 25 - Separately Identifiable E&M Service that is Unrelated to the Usual Pre- and Postoperative Care for the Initial Procedure or Service Performed. Medicare requires providers to include modifier 25 to a surgery claim for any separately identifiable E&M services that are unrelated to the usual pre- and postoperative care for the initial procedure or service performed. Medicare makes full payment to the provider under these circumstances.

Modifiers 26 and TC. Medicare requires modifiers 26 and TC under specific circumstances. Modifier 26 is used to indicate that only the professional component of a service or procedure was performed, while modifier TC is used to indicate that only the technical component was performed. Modifiers 26 and TC are used for three types of services: diagnostic and therapeutic radiology services; certain diagnostic tests that involve a physician's interpretation; and physician pathology services.

Modifier 50 - Bilateral Procedures. Medicare requires that modifier 50 be included on a claim when a physician performing a bilateral procedure that is normally done on only one side of the body does both sides instead. In this case, Medicare payment is 150 percent of the global fee for the index procedure.

Modifier 51 - Multiple Procedures. Medicare requires the use of modifier 51 for multiple procedures. Medicare's policy is to pay the highest valued procedure its full value, then pay the second highest valued procedure 50 percent of its value, then pay the third, fourth and fifth highest valued procedures 25 percent of their respective values. A sixth procedure requires an operative report and is paid on a "by report" basis after special carrier review. In the case of multiple endoscopies, Medicare's policy is to pay the full value of the higher valued endoscopy plus the difference between the next highest endoscopy and the base endoscopy. Medicare's rationale behind this rule is that the multiple endoscopy policy is necessary to prevent double payment since the value of the basic endoscopy is built into all other endoscopy procedures. Medicare's payment policy for certain multiple dermatologic services includes the use of separate CPT codes (and RVUs) to represent multiple surgical procedures. For these procedures, multiple procedure rules will not apply because pre- and post-work and practice expenses will be diminished. A state must decide whether Medicare's payment rules for the various multiple surgeries are appropriate for its providers.

Modifier 54 - Surgical Care Only. Medicare does not allow separate payment of the preoperative and surgical care components, and therefore the use of Modifier 54. However, states may have very legitimate circumstances in rural areas whereby a family practitioner provides the preoperative care in anticipation of the arrival of an itinerant surgeon. The surgeon performing the intra-operative surgical care would submit a bill with modifier 54 and would receive payment based on the intra-operative percentage of the global surgery RVU total. Each state will need to address the appropriateness of using this modifier.

Modifier 55 - Postoperative Care Only. The AMA's CPT modifier 55 is used when providers perform only the postoperative care component of a global surgery package. Medicare bases its payment on the postoperative percentage of total RVUs within the global surgical package.

Modifier 56 - Preoperative Care Only. As in the use of Modifier 54 above, Medicare does not allow separate payment for the preoperative care component performed separately from the surgery, and therefore the use of Modifier 56. A state's decision on the use of modifier 56 will depend in large part on what it decides about the use of modifier 54.

Modifier 57 - Decision for Surgery. An E&M service, usually a visit, that resulted in the initial decision to perform the surgery.

Modifier 58 - Staged or Related Procedure by the Same Physician During the Postoperative Period. Modifier 58 was involved in 1994 and is used to identify a procedure during the postoperative period that (1) was planned before the time of the original (staged) procedure, (2) was more extensive than the original surgical procedure, or (3) consisted of therapy following a diagnostic surgical procedure.

Modifier 62 - Co-Surgeons. Modifier 62 is used to recognize instances where a procedure requires the skills of two surgeons, with each providing unique and separate services. Under the Medicare program, when two surgeons with different specialties are working together to perform the *same procedure* (same CPT code) and are providing separate services during the same procedure, each physician must attach modifier 62 to the claim for the procedure. Each surgeon will be paid at 62.5 percent of the global surgery fee schedule amount. Medicare's policy does not allow for the billing of an assistant-at-surgery when the surgery is performed by co-surgeons.

Modifier 66 - Team Surgery. Medicare recognizes that certain procedures are highly complex, requiring the skills of more than two surgeons from different specialties, in addition to the skills of other highly qualified professionals and special equipment. An example would be a heart-lung transplant. When more than two surgeons from different specialties are working together to perform the same procedure and are providing separate services during the same procedure, Medicare considers each physician to be a member of a surgical team. Medicare requires that each physician submit a claim for the procedure with modifier 66 added to the procedure code. Payment is determined after review of an operative report. Medicare does not allow for the billing of an assistant-at-surgery when team surgery is performed.

Modifier 75 - Concurrent Care Rendered by More than One Physician. Modifier 75 is used to recognize when concurrent care is rendered by more than one physician.

Modifier 76 - Repeat Procedure by Same Physician. Modifier 76 is used to recognize circumstances when a repeat procedure is performed by the same physician during the global fee period. Full payment is made for the procedure.

Modifier 77 - Repeat Procedure by Another Physician. Modifier 77 is used to recognize circumstances when a repeat procedure is performed by another physician during the global fee period. Full payment is made for the procedure.

Modifier 78 - Return Trip to the Operating Room. Modifier 78 is used to recognize instances where a return trip to the operating room is necessary within the global surgical period. All claims with modifier 78 are subject to automatic manual review by each payer before payment is issued.

Modifier 79 - Unrelated Procedures to the Original Procedure Performed by the Same Physician. Modifier 79 is used to recognize circumstances where necessary procedures unrelated to the original procedure are performed by the same physician within the global postoperative period. All claims with modifier 79 are subject to automatic manual review before payment is issued.

Modifiers 80, 81 and 82 - Assistant-at-Surgery. Medicare recognizes that certain procedures are sufficiently complex to require the assistance of another surgeon, or a trained nonphysician provider, in the performance of the same procedure. The surgeons are generally considered to be providing the same set of skills during the same procedure. Medicare will be pay the primary surgeon 100 percent of the global surgery fee schedule amount and the assistant 16 percent of the global surgery fee schedule amount. Medicare uses three CPT assistant-at-surgery modifiers and requires that each assistant surgeon submit a claim for the procedure with modifier 80, 81 or 82 added to the procedure code. The appropriate modifier is dependent upon the teaching status of the hospital in which the procedure is performed:

- Modifier 80 is to be used if the procedure is performed in a nonteaching hospital.
- Modifier 81 is to be used if the procedure is performed in a nonteaching hospital and the assistance provided during the surgery was minimal.
- Modifier 82 is to be used if the procedure is performed in a teaching hospital and a qualified resident is not available to act as assistant surgeon.

Medicare's policy does allow nonphysician providers to be paid as assistants-at-surgery. It pays them 16 percent of the global surgery fee schedule amount.

Medicare has long been concerned that assistant surgeons are used when no medical need is apparent. Therefore, Medicare has identified a list of surgical procedure codes for which it will not allow billing for an assistant surgeon. These are procedures in which an assistant was used in less than 5 percent of surgeries nationally. Payment for assistants will be denied for surgical procedures on this published list. Currently, there are roughly 1,950 procedures for which payment will not be made for assistants-at-surgery.

APPENDIX F
MEDICARE TRANSITION METHODOLOGY

The transition from CPR to the Medicare Fee Schedule (MFS) involves comparing the adjusted historical payment basis (AHPB) fees to full payment under the MFS. AHPB fees were calculated by each Medicare carrier and represent an average of fees by all providers for each specific service. That is, within a locality, each service has an average fee computed for it using prevailing charges from July 1, 1989 through June 30, 1990. To form an AHPB, two adjustments were made. The first was a 5.5-percent reduction resulting from asymmetrical transition rules (discussed below) built into the MFS legislation. The second was a 1.9-percent upward adjustment from the default update mechanism for fiscal year 1992 AHBP fees (resulting from spending in 1990). The 1.9-percent update was computed as the Medicare Economic Index (2.8 percent) minus the excess growth in Part B expenditures of 0.9 percent, measured by the difference between target Part B expenditures and actual expenditures, or 9.1 percent - 10.0 percent.

For 1992, a service was paid the MFS amount if the AHPB fee was within +/- 15 percent of the MFS amount. About 26 percent of all services fell within this corridor. The other 74 percent of services with AHPB fees outside this corridor are subjected to the transition methodology below:[1]

- For 1992, a service with an AHPB amount 15 percent above (below) the MFS amount is paid the AHPB amount less (plus) 15 percent of the MFS amount. This amount is therefore the "approved" amount for 1992.
- For 1993, the approved amount = (1992 approved amount x .75) + (MFS amount x .25).
- For 1994, the approved amount = (1993 approved amount x .67) + (MFS amount x .33).
- For 1995, the approved amount = (1994 approved amount x .50) + (MFS amount x .50).
- For, 1996, all services receive the MFS amount.

Fees that are below 85 percent of the 1992 MFS amount will rise at a faster rate during the transition than those above 115 percent of the 1992 MFS amount will fall. Simulations showed that this asymmetry in the transition would increase Medicare Part B expenses; thus the 5.5 percent reduction in historical payment basis fees was imposed to preserve budget neutrality.

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[1] Radiology services were transitioned using a +15-percent corridor for adjusting fees upward and a -9-percent corridor for adjusting fees downward. Otherwise, the transition to the full MFS is identical to that of all other services.

APPENDIX G
SERVICES SUBJECT TO SITE-OF-SERVICE ADJUSTMENT: MEDICARE

PROCEDURE CODE	DESCRIPTION
A2000	Manipulation of spine
H5300	Occupational therapy
M0005	Office visits -two or more modal.
M0006	Office visits - with one modality
M0007	Office visit combination of modal.
M0008	Office visit combination of modal.
M0101	Cutting or removal of corns
10040	Acne surgery
10060	Drainage of skin abscess
10061	Drainage of skin abscess
10080	Drainage of pilonidal cyst
10120	Remove foreign body
10121	Remove foreign body
10140	Drainage of hematoma/fluid
10160	Puncture drainage of lesion
11000	Surgical cleansing of skin
11001	Additional cleansing of skin
11040	Surgical cleansing, abrasion
11041	Surgical cleansing of skin
11050	Trim skin lesion
11051	Trim 2 to 4 skin lesions
11052	Trim over 4 skin lesions
11100	Biopsy of skin lesion
11101	Biopsy, each added lesion
11200	Removal of skin tags
11201	Removal of added skin tags
11300	Shave skin lesion
11301	Shave skin lesion
11302	Shave skin lesion
11305	Shave skin lesion
11306	Shave skin lesion
11307	Shave skin lesion
11310	Shave skin lesion
11311	Shave skin lesion
11312	Shave skin lesion
11400	Removal of skin lesion
11401	Removal of skin lesion
11402	Removal of skin lesion
11403	Removal of skin lesion
11420	Removal of skin lesion
11421	Removal of skin lesion
11422	Removal of skin lesion
11423	Removal of skin lesion
11440	Removal of skin lesion

APPENDIX G
SERVICES SUBJECT TO SITE-OF-SERVICE ADJUSTMENT: MEDICARE

PROCEDURE CODE	DESCRIPTION
11441	Removal of skin lesion
11442	Removal of skin lesion
11443	Removal of skin lesion
11600	Removal of skin lesion
11601	Removal of skin lesion
11602	Removal of skin lesion
11603	Removal of skin lesion
11620	Removal of skin lesion
11621	Removal of skin lesion
11622	Removal of skin lesion
11623	Removal of skin lesion
11640	Removal of skin lesion
11641	Removal of skin lesion
11642	Removal of skin lesion
11643	Removal of skin lesion
11700	Scraping of 1-5 nails
11701	Scraping of additional nails
11710	Scraping of 1-5 nails
11711	Scraping of additional nails
11730	Removal of nail plate
11731	Removal of second nail plate
11732	Remove additional nail plate
11740	Drain blood from under nail
11750	Removal of nail bed
11760	Reconstruction of nail bed
11762	Reconstruction of nail bed
11765	Excision of nail fold, toe
11900	Injection into skin lesions
11901	Added skin lesion injections
15851	Removal of sutures
16000	Initial treatment of burn(s)
16010	Treatment of burn(s)
16020	Treatment of burn(s)
16025	Treatment of burn(s)
17000	Destroy benign/premal lesion
17001	Destruction of add'l lesions
17002	Destruction of add'l lesions
17010	Destruction skin lesion(s)
17100	Destruction of skin lesion
17101	Destruction of 2nd lesion
17102	Destruction of add'l lesions
17104	Destruction of skin lesions
17105	Destruction of skin lesions
17110	Destruction of skin lesions

APPENDIX G
SERVICES SUBJECT TO SITE-OF-SERVICE ADJUSTMENT: MEDICARE

PROCEDURE CODE	DESCRIPTION
17200	Electrocautery of skin tags
17201	Electrocautery added lesions
17250	Chemical cautery, tissue
17304	Chemosurgery of skin lesion
17305	2nd stage chemosurgery
17306	3rd stage chemosurgery
17307	Followup skin lesion therapy
17310	Extensive skin chemosurgery
17340	Cryotherapy of skin
17360	Skin peel therapy
19000	Drainage of breast lesion
20000	Incision of abscess
20500	Injection of sinus tract
20520	Removal of foreign body
20550	Inj tendon/ligament/cyst
20600	Drain/inject joint/bursa
20605	Drain/inject joint/bursa
20610	Drain/inject joint/bursa
20615	Treatment of bone cyst
21030	Removal of face bone lesion
24650	Treat radius fracture
25500	Treat fracture of radius
25600	Treat fracture radius/ulna
26010	Drainage of finger abscess
26600	Treat metacarpal fracture
26720	Treat finger fracture, each
28001	Drainage of bursa of foot
28010	Incision of toe tendon
28108	Removal of toe lesions
28124	Partial removal of toe
28126	Partial removal of toe
28153	Partial removal of toe
28160	Partial removal of toe
28190	Removal of foot foreign body
28230	Incision of foot tendon(s)
28232	Incision of toe tendon
28234	Incision of foot tendon
28270	Release of foot contracture
28272	Release of toe joint, each
28470	Treat metatarsal fracture
28475	Treat metatarsal fracture
28490	Treat big toe fracture
28510	Treatment of toe fracture
28515	Treatment of toe fracture

APPENDIX G
SERVICES SUBJECT TO SITE-OF-SERVICE ADJUSTMENT: MEDICARE

PROCEDURE CODE	DESCRIPTION
29065	Application of long arm cast
29075	Application of forearm cast
29085	Apply hand/wrist cast
29105	Apply long arm splint
29125	Apply forearm splint
29126	Apply forearm splint
29130	Application of finger splint
29200	Strapping of chest
29260	Strapping of elbow or wrist
29345	Application of long leg cast
29355	Application of long leg cast
29365	Application of long leg cast
29405	Apply short leg cast
29425	Apply short leg cast
29435	Apply short leg cast
29440	Addition of walker to cast
29515	Application lower leg splint
29520	Strapping of hip
29530	Strapping of knee
29540	Strapping of ankle
29550	Strapping of toes
29580	Application of paste boot
29700	Removal/revision of cast
29705	Removal/revision of cast
30100	Intranasal biopsy
30110	Removal of nose polyp(s)
30200	Injection treatment of nose
30210	Nasal sinus therapy
30901	Control of nosebleed
31000	Irrigation maxillary sinus
31505	Diagnostic laryngoscopy
31575	Diagnostic laryngoscopy
36400	Drawing blood
36425	Establish access to vein
36470	Injection therapy of vein
36471	Injection therapy of veins
36500	Insertion of catheter, vein
40490	Biopsy of lip
40808	Biopsy of mouth lesion
40810	Excision of mouth lesion
40812	Excise/repair mouth lesion
41100	Biopsy of tongue
41108	Biopsy of floor of mouth
42100	Biopsy roof of mouth

APPENDIX G
SERVICES SUBJECT TO SITE-OF-SERVICE ADJUSTMENT: MEDICARE

PROCEDURE CODE	DESCRIPTION
42330	Removal of salivary stone
42650	Dilation of salivary duct
42800	Biopsy of throat
45300	Proctosigmoidoscopy
45303	Proctosigmoidoscopy
45330	Sigmoidoscopy, diagnostic
46083	Incise external hemorrhoid
46221	Ligation of hemorrhoid(s)
46230	Removal of anal tabs
46320	Removal of hemorrhoid clot
46500	Injection into hemorrhoids
46600	Diagnostic anoscopy
46604	Anoscopy and dilation
46614	Anoscopy; control bleeding
46615	Anoscopy
46900	Destruction, anal lesion(s)
46934	Destruction of hemorrhoids
46936	Destruction of hemorrhoids
46945	Ligation of hemorrhoids
51700	Irrigation of bladder
51705	Change of bladder tube
51720	Treatment of bladder lesion
53600	Dilate urethra stricture
53601	Dilate urethra stricture
53620	Dilate urethra stricture
53621	Dilate urethra stricture
53660	Dilation of urethra
53661	Dilation of urethra
53670	Insert urinary catheter
54235	Penile injection
55000	Drainage of hydrocele
56501	Destruction, vulva lesion(s)
57100	Biopsy of vagina
57150	Treat vagina infection
57160	Insertion of pessary
57452	Examination of vagina
57454	Vagina examination & biopsy
57500	Biopsy of cervix
57505	Endocervical curettage
57510	Cauterization of cervix
57511	Cryocautery of cervix
58100	Biopsy of uterus lining
59425	Antepartum care only
59426	Antepartum care only

APPENDIX G
SERVICES SUBJECT TO SITE-OF-SERVICE ADJUSTMENT: MEDICARE

PROCEDURE CODE	DESCRIPTION
60100	Biopsy of thyroid
64400	Injection for nerve block
64405	Injection for nerve block
64413	Injection for nerve block
64418	Injection for nerve block
64425	Injection for nerve block
64440	Injection for nerve block
64441	Injection for nerve block
64445	Injection for nerve block
64450	Injection for nerve block
64505	Injection for nerve block
64550	Apply neurostimulator
64565	Implant neuroelectrodes
64640	Injection treatment of nerve
65205	Remove foreign body from eye
65210	Remove foreign body from eye
65220	Remove foreign body from eye
65222	Remove foreign body from eye
65430	Corneal smear
65435	Curette/treat cornea
66761	Revision of iris
67145	Treatment of retina
67210	Treatment of retinal lesion
67228	Treatment of retinal lesion
67505	Inject/treat eye socket
67515	Inject/treat eye socket
67700	Drainage of eyelid abscess
67800	Remove eyelid lesion
67801	Remove eyelid lesions
67810	Biopsy of eyelid
67820	Revise eyelashes
67825	Revise eyelashes
67840	Remove eyelid lesion
67850	Treat eyelid lesion
68020	Incise/drain eyelid lining
68110	Remove eyelid lining lesion
68200	Treat eyelid by injection
68440	Incise tear duct opening
68760	Close tear duct opening
68761	Close tear duct opening
68800	Dilate tear duct opening(s)
68820	Explore tear duct system
68830	Reopen tear duct channel
68840	Explore/irrigate tear ducts

APPENDIX G
SERVICES SUBJECT TO SITE-OF-SERVICE ADJUSTMENT: MEDICARE

PROCEDURE CODE	DESCRIPTION
69000	Drain external ear lesion
69020	Drain outer ear canal lesion
69100	Biopsy of external ear
69200	Clear outer ear canal
69210	Remove impacted ear wax
69220	Clean out mastoid cavity
69222	Clean out mastoid cavity
69400	Inflate middle ear canal
69401	Inflate middle ear canal
69420	Incision of eardrum
69433	Create eardrum opening
69610	Repair of eardrum
92002	Eye exam, new patient
92004	Eye exam, new patient
92012	Eye exam established pt
92014	Eye exam & treatment
92018	New eye exam & treatment
92020	Special eye evaluation
92070	Fitting of contact lens
92100	Serial tonometry exam(s)
92120	Tonography & eye evaluation
92130	Water provocation tonography
92140	Glaucoma provocative tests
92225	Special eye exam, initial
92226	Special eye exam, subsequent
92230	Eye exam with photos
92311	Contact lens fitting
92312	Contact lens fitting
92352	Special spectacles fitting
92353	Special spectacles fitting
92504	Ear microscopy examination
92506	Speech & hearing evaluation
92507	Speech/hearing therapy
92511	Nasopharyngoscopy
92516	Facial nerve function test
93797	Cardiac rehab
93798	Cardiac rehab/monitor
95831	Limb muscle testing, manual
95832	Hand muscle testing, manual
95833	Body muscle testing, manual
95834	Body muscle testing, manual
95851	Range of motion measurements
95852	Range of motion measurements
95857	Tensilon test

APPENDIX G
SERVICES SUBJECT TO SITE-OF-SERVICE ADJUSTMENT: MEDICARE

PROCEDURE CODE	DESCRIPTION
96405	Intralesional chemo admin
96406	Intralesional chemo admin
96440	Chemotherapy, intracavitary
99201	Office/outpatient visit, new
99202	Office/outpatient visit, new
99203	Office/outpatient visit, new
99204	Office/outpatient visit, new
99205	Office/outpatient visit, new
99211	Office/outpatient visit, est
99212	Office/outpatient visit, est
99213	Office/outpatient visit, est
99214	Office/outpatient visit, est
99215	Office/outpatient visit, est
99241	Office consultation
99242	Office consultation
99243	Office consultation
99244	Office consultation
99245	Office consultation
99271	Confirmatory consultation
99272	Confirmatory consultation
99273	Confirmatory consultation
99274	Confirmatory consultation
99275	Confirmatory consultation
99354	Prolonged service, office
99355	Prolonged service, office
99356	Prolonged service, inpatient
99357	Prolonged service, inpatient

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